New Orleans Medical
and
Surgical Journal

Vol. 94 JUNE, 1942 No. 12

PHYSICIAN AND SCIENTIST—1850*

ROBERT J. USHER

NEW ORLEANS

It has long been generally believed that there was little or no interest in science in the South in the period preceding the Civil War. The statement so often met with runs somewhat as follows: In the old South with its system of slave labor there was a predominant interest in agriculture. There was little need for science and technology. Cultured sons and daughters under this system were interested only in a classical education. The masses remained not highly educated. A distinguished Harvard historian wrote as recently as 1927, "The cultivation of cotton and the neglect of men had by 1850 killed practically every germ of creative thought."

In addition to many who have stressed the South's devotion to the classical tradition there is a small but vociferous group of recent origin who insist the South must and shall remain agrarian. Fortunately these latter voices are being drowned out by the hum of industry. We now know that this common belief is quite erroneous. The lives of such men as Joseph and John LeConte of Georgia, of the Ravenels of Charleston, of Dr. Joseph Jones of Georgia and Louisiana, of Matthew Maury of Virginia, of John Holbrook of South Carolina, of Gerard Troost of Tennessee, of Audubon of Louisiana and Rafinesque of Kentucky and of scores of other Southern scientists, go far toward refuting these misleading statements. Even in the field of technology it should be remembered that the South made no small contributions, including some of the first railroads and steamboats. Cyrus McCormick's reaper came from Virginia, from which state also came numerous other important inventions.

The truth is that while the old South was by no means an outstanding leader in scientific progress, there were here, as elsewhere, numbers of persons genuinely interested in science. The proportionate number of such men was smaller in the South than elsewhere because public education under the conditions prevailing was never given the taxpayers' support it deserved.

This whole question of whether or not the pre-Civil War South had any interest in science was admirably treated in 1936 by Thomas Cary Johnson, Professor of History in the University of Virginia. Dr. Johnson in this work entitled "Scientific Interests in the Old South" once and for all gave an answer to those who have insisted that in the South of the past the classical tradition alone prevailed. No one has since risen in any serious attempt to assail Dr. Johnson's proofs.

What was true in the South generally was true in Louisiana and particularly in its largest city, New Orleans. When Dionysius Lardner, the Irish scientist, lectured in New Orleans in 1843 on physical and astronomical subjects he did not lack for an interested audience. When the great naturalist, Louis Agassiz, gave a series of popular lectures in the Lyceum Hall of this city in the summer of 1853 the New Orleans Medical and Surgical Journal said that

*Annual Oration read before the sixty-third annual meeting of the Louisiana State Medical Society, New Orleans, April 29, 1942.

there could not be complaint "that the money making, money spending, amusement seeking citizens of New Orleans do not appreciate him, seeing that among his auditors are not only hundreds of learned lawyers, physicians and teachers, but hundreds of merchants, and still other hundreds of the fair sex."

Similarly Benjamin Silliman, founder of the American Journal of Science and Arts, when he delivered here in 1845 his course of ten lectures on geology, had at least two or three hundred attentive listeners. His son, Benjamin, the eminent chemist, here at the same time, gave a course of lectures on agricultural chemistry, believed to have been the first series of lectures on the subject to be given anywhere in America.

Wherever any considerable number of people were living together there were likely to be scientific societies. New Orleans had its medical societies long before your organization came into being. I do not propose to go into a history of these medical societies (that will be done by Dr. Matas in good time in his forthcoming history of medicine in Louisiana), I simply call your attention to the fact that such societies existed, chiefly among the French speaking physicians of New Orleans, at a very early day. I call your attention in passing also to the fact that there was a Louisiana State Medical Society which immediately preceded your own and which existed from 1849 to 1855. I mention this fact especially because in 1878 when Dr. Stanford Chaillé wrote on the subject he said he had been unable to find anywhere in a Louisiana library a complete set of the five volumes of proceedings of this society, and he hinted that insult had been added to injury by the request of the Boston Medical Society for *his* assistance in completing the Massachusetts' library file. I think you will be interested to learn that through the magic of the microfilm we have today in the Tulane University Medical Library a complete file of those early reports and appropriately enough we got part of them from the Boston Medical Society.

Before leaving the matter of early scientific societies, mention should be made of the Physico-Medical Society of New Orleans founded in 1820 and the Louisiana Medico-Chirurgical Society organized in 1839. The very names of these two societies suggest one of the tendencies of that time—that is to admit to membership, at least as associates, men scientifically inclined who had not received a medical education. In both these organizations an associate member was known under the unusual name of "assessor." This meant not one who had something to do with the assessment of taxes but rather one who acted in an advisory capacity, lower in dignity and as an assistant. The Physico-Medical Society counted among its assessors some who professed little knowledge of science, among others the revered Rev. Theodore Clapp, long known for his spiritual ministrations to the distressed people of the city of New Orleans. The Medico-Chirurgical Society was less liberal in its provisions. Only an able chemist or pharmacologist could hope to become one of its assessors.

In the smaller cities of Louisiana there were in this period similar scientific organizations. In Baton Rouge there was in 1850 a Physico-Medical Society. Out in the Teche country, at Opelousas, there was in existence a Houma Scientific Association. In Shreveport there was in 1856 the Medical Association of North Louisiana and up at St. Francisville, as early as 1845, there was a West Feliciana Medical Society.

In New Orleans, in March, 1853, five physicians, Drs. Bennet Dowler, N. B. Benedict, Howard Smith, I. S. Copes and H. D. Baldwin, met together to consider an organization which should be mutually beneficial to medicine and to natural science. The result was the formal inauguration of the New Orleans Academy of Sciences which is this week holding its annual meeting, after having carried on for eighty-nine years. The records of this society, including some in manuscript, are kept in the custody of the Howard-Tilton Memorial Library of Tulane University. The early

archives of the society have interested me greatly and as I have studied them and the records of their deliberations, I have been impressed with the fact that here was gathered together a group of remarkable men. They found time to interest themselves in many forms of scientific progress and in many ways. Their records indicate that they evidently preferred discussions to the presentation of formal papers. They were not only abreast, but often far in advance of the time in which they lived.

These men carried out in their activities the tradition of that period which was that the medical man could not wholly limit himself to professional contacts and interests. He must have a broad-minded point of view toward sciences more or less related to medicine. When Dr. I. L. Crawcour addressed the young men of the New Orleans School of Medicine in 1858 he said, "As physicians you are the interpreters of nature, the expounders of all that surrounds you." This represents the professional attitude of the time. Nothing illustrates this tendency better than the files of medical journals of that period. In them you will find not merely records and discussions of cases dealing with medicine and surgery but likewise excellent articles on zoology, botany, chemistry, geology, anthropology, population and many other subjects. The New Orleans Medical and Surgical Journal announced in 1857 "that it proposed to collect from different sources a few observations on paleontology, geology and ethnology . . . hoping the critical reader will allow them to be mustered with the articles on the Progress of Medicine." Occasionally the Journal felt somewhat apologetic for its stand. Thus in 1856, to an article in which there appeared three or four pages of an historical character concerning the Indians of Texas, a footnote was appended which read "It is by no means essential to the purposes of the most intensely practical journal to fill its pages with tedious histories of cases *ad infinitum*. It is far better, more practical to induce men to think, to investigate, to discover and then to apply. A writer, for instance, who describes the fauna, flora and diseases of Texas truly contributes to the treasury of science. To verify the identity, or the differentiae of a plant, reptile, or fever in a special district, as compared with other localities is to contribute to the progress of science even though no absolute novelty or discovery may be developed."

The quotations offer an explanation for inclusion in medical journals of that day of material which seems to us only remotely concerned with medical science.

I have referred to the local organizations of these scientists. They indicated their wider interest through membership in national organizations. Among early members of the American Medical Association which held its first meeting in New York in 1846 were the Louisiana doctors, John Harrison, William Carpenter and A. J. Wedderburn.

And as might be expected the American Association for the Advancement of Science, organized in 1848, numbered among its early members such Louisiana men as Dr. William Carpenter and Dr. John L. Riddell of New Orleans. In 1853 Dr. Riddell presented two papers before this society at its annual meeting in Cleveland.

They found time, also to contribute to well-known scientific journals. From Sicily Island, Dr. Clarendon Peck wrote observations on plants which were published in the Transylvania Journal of Medicine and Associated Sciences in 1835. Carpenter and Dowler contributed to the American Journal of Science and Arts. Riddell was early a contributor to the Western Journal of Medical and Physical Sciences of Cincinnati. Caleb Forshey's notes went to the Boston Society of Natural History while B. L. C. Wailes of Natchez was contributing to the Association of American Geologists and Naturalists.

These scientists of 1850 were interested in all sorts of things. Contrary to what Mark Twain is alleged to have said about the weather, these physicians really did something about it—at least they recorded

it. Dr. Edward Barton, whose meteorological tables frequently appeared in the medical journals of New Orleans, said in 1853 that he had kept records of precipitation from the year 1825 on. Once he said it was his practice to make observations of the weather following methods adopted by scientific observers—at daybreak, 9 a. m., 3 p. m., and 9 p. m. Dr. S. B. North kept such records for Mobile from 1840 to 1848. Dr. Edward Merrill made observations at Trinity, near what is now Harrisonburg, Louisiana. Dr. Henry Tooley of Natchez kept perhaps the fullest and longest continued weather records for the Mississippi Valley, running uninterruptedly from 1825 to 1850. D. T. Lillie of New Orleans, connected with a house dealing in nautical charts, kept weather records which were published in the medical journals of the city for many years but Dr. Barton thought they were not entirely accurate.

These medical men were much interested also in zoology. The cold-blooded animals held for them a deadly fascination. Dr. Albert Welles Ely of this city, in 1851, wrote:

"A few mornings since we rose at 5 o'clock and took a long walk with a literary friend. Among other places we visited the old French Market where we had an opportunity of testing amid the confusion of that polyglot mart, the accuracy of the reflex theory of the neurologists. We saw in the fish market several large turtles, decapitated, the interior plates of their shells entirely removed. The hearts of all of them were fully exposed and particularly attracted our attention by their continued and regular beating. Their legs were continually in motion as if laboring to escape. Little did we think when we left our drowsy beds to inhale the morning air that we were about to hold a scientific consultation, before sunrise, over a collection of vivisections that would have made even Marshall Hall or Magendie forget their breakfasts and all their experiments. Shade of Aesculapius, what a sight! Seven fine turtles, emboweled and decapitated, and yet with palpitating hearts and legs laboring to escape! What a pity that our friend Bennett Dowler is not here exclaimed my companion. Such would indeed have been a tempting sight to our distinguished Southern vivisector, for he would have seen before him seven palpable and palpitating demonstrations of the truth of his views regarding the reflex nonsense of the day. It was evident that muscular motions in all parts of the turtle's body were not dependent on the brain. We resorted to manipulations and found they behaved like turtles with heads. If we caught them by the feet they pulled away from us. Their perfect sensibility to external impressions made by us upon them could not be doubted."

For tireless Dr. Bennet Dowler, one of the most interesting of these pioneers, the alligator was the favored animal for experimentation. In 1846 he wrote a very complete treatise on the natural history of this saurian. From 1849 to 1860 he was experimenting to prove that the brain was not the sole source of directed action of this animal. He held that automatic muscular action was due not to impulses set up in the brain but rather that it originated in nerve centers. In this opinion he is believed to have antedated the renowned Brown-Séquard. He also made experiments on the digestive powers of the alligator, the details of which I shall spare you. They would not be appropriate for an after-dinner occasion such is this. Suffice it to say, Dr. Dowler left nothing to the imagination. He insisted upon knowing the whole truth of the matter without squeamishness.

This hardy doctor was also much interested in mosquitoes. He wrote, in 1856, for one of the medical journals, a scholarly treatise on these insects which told practically everything known about them and barely missed the fact that the mosquito is a carrier in the spread of yellow fever. He said that as early as 1843 he had published the fact that mosquito bites were used as indicants of the actual or hemorrhagic stage of yellow fever.

How these medical men of the 50's strove

to find the cause of yellow fever! I assure you the literature representing their researches on the subject would make an impressive library. And how very near to the truth they came; Dr. Josiah Nott of Mobile, in 1848, had come out in favor of the animalcular hypothesis as the cause of yellow fever and Richard Henry Wilde of New Orleans, best remembered as a poet, had referred to it in a discussion with Sir Charles Lyell when he was here in 1846.

These men had a passion for geology and paleontology also. The New Orleans Academy of Sciences in the late 50's was urging the establishment of a State Geological and Agricultural Survey. Members, usually physicians, wrote endless letters to other physicians in all parts of the state urging them to publish in their local newspapers memorials requesting the Legislature to establish such a state survey. While their suggestions were not immediately adopted by a majority, their plans were carried out in the first geological survey which was made in 1869.

There were a number of these physicians interested in botany, notably Dr. Josiah Hale who published numerous contributions to journals which he usually dignified as medical botany. But occasionally he broke away and became purely a botanist, giving the impression that this was what he really wanted most to do. Dr. Hale also had an interest in physics. In 1846 he published an article in which he suggested that the atom was composed of still smaller particles held together by lines of force—an idea that was long in advance of the present-day conception of matter. Dr. Hale did not know the term electron but he came close to describing the characteristics of the force which we describe under that name.

Sometimes these men discussed aeronautics. Mr. Caleb Forshey (not a physician, but a brilliant scientist who came from Natchez to New Orleans) reported to the New Orleans Academy of Sciences in 1853 that one day near Carrollton he had seen a flock of buzzards rise to a height of two miles, with great velocity and with no apparent movement of wings. He concluded that a column of air rushing upward had carried the birds up with it. Now we know that he was absolutely right in his surmise but this was rather an early day in which to be talking about the soaring flight of birds. It was not until 1893 that Otto Lilienthal began in Germany his famous experiments with gliders in which he lost his life. I have wondered if Caleb Forshey could possibly have guessed that by 1942 whole armies would be moved into position through the use of this principle?

One evening in May, 1847, Dr. John Riddell, who usually talked about the compound microscope he had invented, delivered a lecture at the Peoples Lyceum which he called "Orrin Lindsay's Plan of Aerial Navigation With a Narrative of His Explorations in the Higher Regions of the Atmosphere and His Wonderful Voyage Round the Moon." His admirers thought so well of it they had it printed. Now to be sure there were fanciful elements in this imaginative craft of Dr. Riddell's. His airship was a magnetic balloon constructed of a metal which had the curious property of not being affected by the law of gravitation. Ridiculous, we think at once, until we remember that yesterday's airplanes were built of aluminum and tomorrow's will be built of magnesium and those of a distant day will be built of still lighter material that may almost float in the air. Once we are inside Orrin Lindsay's balloon, however, we are hearing very familiar conversation. There is discussion of the ship's oxygen tank to supply pure air. There are questions of extreme cold in the rarefied atmosphere and whether or not there will be danger of colliding at terrific speed with small particles of meteorites—exactly the sort of discussion one would find today in any treatise on stratosphere flying.

Dr. Edward J. Coxe of this city in 1854 wrote about cotton-seed oil, then largely being wasted and then selling at $1.00 a barrel. He said that $38,000,000 a year was being thrown away that might be converted into edible oil and candles and soap. If

Dr. Coxe could know that today the cottonseed oil industry in the United States alone produces products valued at over $250,000,000 a year he would have the satisfaction of knowing that shrewd business men had taken his statements seriously.

And sometimes these wise scientists of old talked about air-conditioning (I know you will find it difficult to believe this—but it is true). Exactly one hundred years ago, in 1842, there appeared in this city, in the Southern Quarterly Review, a remarkable article embodying two lectures which had been made, one in 1835, one in 1837, before the students of the Medical College of Louisiana, by Dr. Edward Barton, in which he seriously proposed air-conditioning the city of New Orleans. Dr. Barton knew and stated at how great a disadvantage economically and hygienically were New Orleans and other Southern cities because of the trying heat in summer. He said it was unnecessary — that the city's buildings and even its streets up to a height of 30 feet or more could be kept all summer long at a temperature of 75°. How did he propose to do it? Not with ice—he said that would be far too expensive. No, he proposed to make use of natural laws of physics. He said that evaporation was the first and most obvious source of artificial refrigeration. He suggested the rarefaction and distribution of atmospheric air previously deprived of large portions of latent heat by mechanical condensation. Large reservoirs in the suburbs would contain the compressed and cooled air which would be released in houses and even in streets and open squares.

He had even an answer for those who would say that currents of air would carry away the released cold air. He said that in every Southern city there were vast pockets of air which summer winds never very materially affected.

I asked my friend, Dr. D. S. Elliott, head of the Physics Department of Tulane University, to tell me what is wrong with Dr. Barton's proposal. He tells me that from the standpoint of physician and physiologist, Dr. Barton was eminently correct and that he was right in his physical calculations so far as knowledge was then available. It was only a year later, 1843, that Joule made clear that heat is a form of energy. Up to them, heat "caloric," as they called it, was something in the nature of an elastic fluid capable of compression. Therefore, Dr. Barton's calculations for cost and horsepower are inaccurate. The fact remains that there are today in New York City corporations which supply to buildings from a distance heat or refrigeration, as required. Before 2052 arrives the doctor's dream of air-conditioned streets may be realized. Of course, it may cost more than the doctor calculated. He thought $8.33 per building per year would be about right!

Yes, these physicians and scientists were interested in a multitude of facts. In the spring of 1854 an artesian well was being drilled on Canal Street at the corner of Dauphine. The members of the New Orleans Academy requested and got specimens of the borings foot by foot and they prepared a chart illustrating their findings. Well water always interested them. They were frequently called upon to make analyses.

A railroad was being built north. They requested and got the elevations above sea level of all the towns between New Orleans and Canton, Mississippi.

And of course, they introduced at their meetings an interesting variety of discussion of medical subjects. One evening in April 1854 they considered at great length the question of the absence of iodine in water supply as a factor in causing goiter. They were evidently quite familiar with European thought on the subject although only two years had passed since Chatin had first pointed out that goiter is prevalent where the quantity of iodine in drinking water is low.

Once, in 1854, Dr. I. L. Crawcour, the Academy's hard-working secretary, demonstrated the effect of a continuous current of galvinism to the skin. And a week later he was presenting a paper on "Diet and its

Influence in the Prevention and Cure of Diseases."

These men were generous with their time and energy. They sustained the reputation of New Orleans for hospitality. When the eminent English geologist Sir Charles Lyell came to the city, Dr. William Carpenter took time from his medical practice to show the visitor Lake Pontchartrain and went with him down to the Mississippi to see the banks formed by sand, mud and drift wood. Dr. Charles Luzenberg showed the distinguished scientist his museum of natural history attached to his private hospital out on Elysian Fields in which, among other things, he had some unclassified snakes and grasshoppers.

When the Honorable Amelia Murray came here in the 50's (she had been a maid-of-honor to Queen Victoria and she had a knowledge of botany) Dr. Riddell dutifully went with her on a botanizing expedition up into Mississippi where she gave an Indian name to the town of Chatawa.

When Dr. Marshall Hall, the distinguished London physiologist, came to New Orleans from Cuba in 1854 he was welcomed by the New Orleans Academy of Sciences and as a special mark of appreciation was asked to dissect a small alligator before a highly interested group.

They sent specimens of scientific interest to various museums and especially to the newly founded Smithsonian Institute in Washington—three living turtles, skins of animals, a keg of serpents and other gifts from New Orleans and from St. Charles College in Grand Coteau were sent coleopterous insects, birds and reptiles.

The men were generous with their time, with their gifts and with such means as they had. Few of them attained any considerable degree of wealth. For the most part they had little more than ideas and courage of their convictions. The story of the founding of the New Orleans Medical and Surgical Journal which has continued publication since 1844 is, I am sure, familiar to you. The two founders, Drs. Erasmus Fenner and Abner Hester, years later said they were fortunate in being able to borrow for this venture $11.00 which they used to issue a prospectus and they were again fortunate in finding a French printer who was out of a job and "who had a pocket full of type."

But you may very well be saying, suppose it is true that these men of 1850 engaged in all sorts of scientific activities and showed unusual curiosity in all that was going on around them—what does it matter—what significance to us is there in all this? Thus, I say, by their actions they established firmly the traditions which have been so ably carried on by the members of your society as their successors for the past sixty-six years. These scientists were looking far into the future and to the assurance of better living conditions for those who were to come after them. They were not mere sensation seekers with time heavy on their hands who were following the trend of the times. They were genuinely interested in everything that held a hope for better conditions. We may smile at what seems to us inordinate curiosity and over-zealousness in the cause of science but we cannot doubt their sincerity and their genuine desire to improve conditions.

It must be remembered these pioneers had lived, such of them as had survived, through terrible conditions. Year after year they had seen epidemics of yellow fever, of cholera and of plague. They had seen the city's population cut down by typhus and typhoid fever. They lived in a city incredibly filthy for want of proper sanitary conditions. In the report of the Sanitary Commission of 1853, Dr. Edward Barton said, "New Orleans is one of the dirtiest, and with other conjoint causes, is consequently the sickliest city in the Union and scarcely anything has been done to remedy it. In no part of the world is a thorough sanitary reform so much needed as in New Orleans. In no country on earth has a place been so much injured through a want of insight into her sanitary condition by her

municipal officials." Dr. Barton was one who had lived through the year 1825 when he said he saw literally hundreds of horses, unable to extricate themselves, dead in the mud of Camp and Tchoupitoulas Streets.

Moreover they lived in a wicked and sinful city, where gambling and vice flourished and general laxity of morals was all too common. Within a few blocks of where these scientific gentlemen were holding their meetings was the notorious "Swamp," a district in which it is said murders occurred almost nightly and into which no police so much as ventured to correct conditions. But none of these things meant very much in the lives of those serious students except in so far as they might be called in to minister to those whose indiscretions had led them into trouble.

They lived in a period when hot blood flowed and resentments led to duels, but the record shows that physicians were seldom principals. True they had their honest differences and there was professional jealousy but they settled their quarrels usually without resorting to the sword. The celebrated instance of a serious scientific quarrel comes to mind which occurred when Thomassy, brilliant French geologist, provincial to a fault, who could find no virtue in things American, one day said, "Bah' the Mississippi River. It should be made to flow straight and kept within its banks, or else should be dammed up." And a Creole gentleman replied, "That shows how little you know of our mighty Mississippi." Said Thomassy, "In Europe we have rivers beside which the Mississippi is a mere brook." "I will not hear the river's name defamed," said the Creole and he slapped Thomassy across the mouth with his glove. At the duel next morning, under the oaks, the Creole gentleman drew first blood. But Thomassy, still provincial, said, "But for the miserable American steel in my sword which bent like lead, I should have run you through." Fortunately for him this time there was no one to accept the challenge for American steel.

You may wonder that these physicians could find time to be interested in so many other sciences. Today it would be impossible. Life has become increasingly complex. There are societies national, state, sectional and local in all fields of endeavor. Publications without number pour from the presses. Out of curiosity I recently asked a number of my physician friends in how many medical societies they hold memberships. One said five, another six, a third eleven and still another thirty-nine. Suppose we say that five or six is average. If you attend meetings of that many medical societies, general and special, read the proceedings of their meetings and follow the periodicals which are their designated official journals, you are not going to have a great deal of time for cognate sciences.

Moreover, it is not necessary. Fortunately for you, you do not have to get up at dawn to make meteorological observations. The United States Weather Bureau is doing that work very satisfactorily. You do not have to be much concerned with geology, paleontology, chemistry and physics. There are flourishing organizations to look after the developments of those sciences. The engineers are successfully looking after the city's paving, drainage and water supply. But that was not true in 1850. Then there were just a few scientists here and there. But there were always physicians and surgeons in every community. *They* were the men who fostered every scientific advance. *They* were the men who got behind every movement which would mean better things for the city. They insisted on the Quarantine Act and the establishment of the Board of Health and when these offices were destroyed by selfish and short-sighted business men, the physicians insisted upon their restoration. It was the work of the Sanitary Commission, chiefly composed of physicians, which pointed the way to better paving, an adequate and pure water supply and the elimination of open sewers. It was not done immediately but they had shown what had to be done. It was the work of Drs. Luzenberg, Stone, Cenas and their associates which led to the foundation of the

Medical College of Louisiana which developed into Tulane University. It was the insistence of the physicians and scientists which brought about the geological surveys.

We pay great tribute to our forefather pioneers, who cleared the wilderness, harnessed the rivers, banished the savage and made the desert bloom. We raise a monument to the pioneer mother, the woman with a lantern in her hand, and we do so very justly. But I think we sometimes forget how much we owe in our everyday living comforts and conveniences to the pioneer scientist. Consider for a moment the burden these men carried for us. They were by their actions and in their associations—in embryo, if you please, the United States Weather Bureau, the State Geological Survey, the Sewerage and Water Board, the Board of Health and the Louisiana Conservation Commission. Is it any wonder that with these responsibilities and living as they did in a notoriously unhealthful city many of them went early in life to their graves? So I say all honor to those hardy pioneer physicians and scientists of old New Orleans—to Bennet Dowler, Erasmus Fenner, Josiah Hale, Warren Stone, Gustavus Nott, Thomas Hunt, Abner Hester, Jean Charles Faget, to William Carpenter and to many, many others whose work was less spectacular but nevertheless important.

It is appropriate that we should pause now and then to remember the lives of these men with gratitude. It is especially appropriate that we should recall them in this place for the ground on which this hotel stands is very near that on which stood the buildings of the University of Louisiana, later Tulane, where these scientists were accustomed to meet and hold their discussions.

Tonight we gather here in a comfortably cooled, air-conditioned room like one envisioned by Dr. Edward Barton in 1835. We ride home, if we are fortunate, in cars which operate because of the work of pioneer geologists and chemists. We ride over streets that are reasonably well paved. The miasmatic swamps have been drained. We enjoy the conveniences of natural gas and petroleum and have available quantities of remarkably pure water even though it still comes from the Mississippi River. Yellow fever and other diseases that gave to New Orleans the dread name of "The Wet Grave" are fortunately largely unhappy memories.

I have owed much in what I have said to you to the work of other writers. To no one am I more indebted than to Dr. Thomas Cary Johnson, whose work I have mentioned. I cannot do better, in closing than to quote from his book a paragraph in which he describes these valiant scientific men of this city. He says: "They were an inqusitive lot, those scientific gentlemen of old New Orleans. Neither human corpses nor alligators' stomachs were safe from their prying curiosity . . . With eager eyes they scrutinized the excrement of cholera patients and the sputum of consumptives. They attempted to measure the rate at which the ground on which they stood had been brought from the interior of the continent and deposited by the Mississippi. Some of them were charlatans, perhaps, but even the charlatans were brilliant and were animated by a genuine desire for scientific discovery. All of them saw themselves and their works in a purple haze. They were glamorous figures and they got the most amazing kick out of life."

CHARITY HOSPITAL AND MEDICAL EDUCATION

LAURENCE BERTRAM WEISS, M. D.†
NEW ORLEANS

One of the largest general hospitals in this country is the Charity Hospital of Louisiana, located in New Orleans. This 3,000 bed institution is one of the nation's oldest hospitals and possesses a long and interesting history extending over two hundred years. For more than a century it has been the dominant influence in directing and advancing medical education in the South.

†From the Resident Staff of Touro Infirmary, New Orleans.

The following account purports to outline briefly the story of Charity Hospital and its role in the training of physicians.

In 1736, Jean Louis,[1] a sailor who had settled in the French colony of Louisiana, bequeathed the major portion of his wealth to found a hospital for the poor of Nouvelle Orleans. "L'hôpital des pauvres de la charité" served both as a hospital and an asylum for the indigent poor until a hurricane destroyed it in 1779. A new twenty-four bed hospital was soon built with a donation of $114,000 by Don Andres de Almonaster y Roxas. Six years after the Louisiana Purchase, a city-wide conflagration reduced this structure to ashes. In 1811 the Legislature provided for a new hospital of 120 beds which, when completed, was the largest hospital in the country at that time. With the steady increasing population, this institution soon became inadequate. In 1830 the buildings were sold, and with the proceeds, the present site of the Charity Hospital was purchased.

Winter of 1833 saw the completion of that Charity Hospital which for one hundred and three years was to be famous throughout the world for its extensive medical services and its educational facilities. The management of the hospital was entrusted to the Sisters of Charity of St. Vincent de Paul, and to this very day they continue to devote themselves unselfishly to this service.

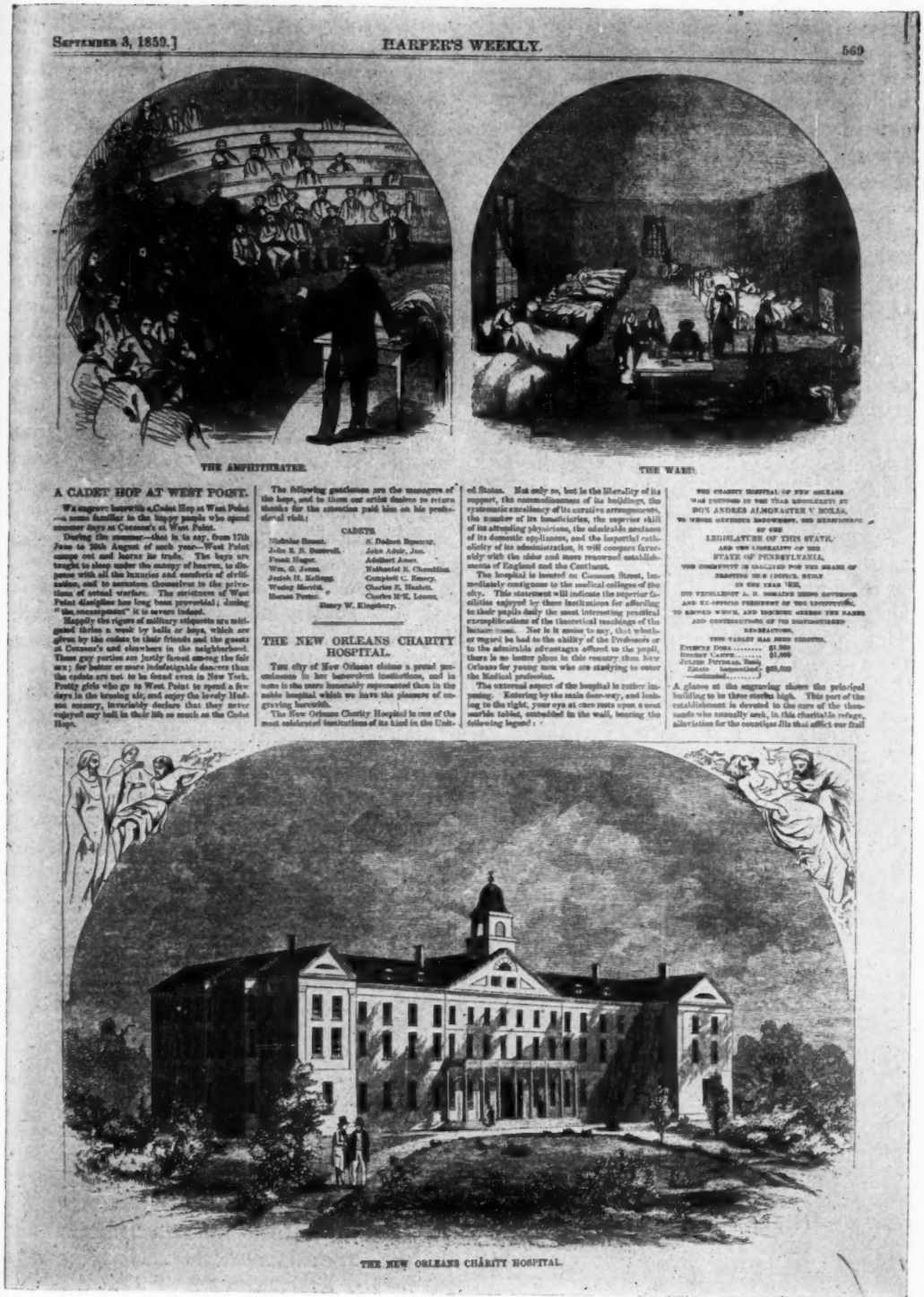
From the very beginning the facilities of Charity Hospital included provisions for the teaching of medical students. In addition to wards which accommodated 500 patients, the hospital possessed a library and a lecture room. In 1835 when the Medical College of Louisiana (now Tulane School of Medicine) was founded, its faculty could make use of the hospital for teaching. One of the facilities available was a Dead House which was "well supplied with light, air and water, good tables and benches; it is altogether admirably adapted to the purposes for which it was designed. It is doubted whether any city in the world presents so pleasant and convenient a place for the study of Anatomy, as this Dead House. Well lighted, well ventilated, a hydrant of clear gushing water and plenty of fresh subjects—what more could be desired."[2] In the early days of the hospital, operations were performed in the wards. Later an amphitheater was added which provided better facilities for students to witness surgical procedures.[3]

An interesting though verbose picturization of the Charity Hospital is recorded in Harper's Weekly[4] of September 3, 1859:

"The New Orleans Charity Hospital is one of the most celebrated institutions of its kind in the United States. Not only so, but in the liberality of its support, the commodiousness of its buildings, the systematic excellency of its curative arrangements, the number of its beneficiaries, the superior skill of its attending physicians, the admirable neatness of its domestic appliances, and the impartial catholicity of its administration, it will compare favorably with the older and more renowned establishments of England and the Continent . . . Nor is it amiss to say that, whether regard be had to the ability of the Professors or to the admirable advantages offered to the pupil, there is no better place in the country than New Orleans for young men who are studying to enter the Medical profession . . .

"Here you will find every type of disease and every gradation of bodily injury, from the simple cold to the malignant vomito, and from spraining of a finger to the compound comminuted fracture of the thigh-bone. Not less than *four hundred* diseases are mustered in their catalogue, each of which has its annual representatives—diseases whose formidable investiture of unpronounceable names would test the lingual lubricity of an unfledged Oxonian; and whose unimagined pangs come little short of the fabled torments of damned ghosts beyond the River Periphlegethon in the Grecian Orcus . . .

"One of the most notable parts of the establishment is the Dead House into which at night are carried the stiff, white, ghastly, staring corpses of those Charity patients who die during the day. Could the unforgotten wretches who are dragged in hither during the year start up at the call of some



SEPTEMBER 3, 1859.] HARPER'S WEEKLY. 569

THE AMPHITHEATER.

THE WARD.

A CADET HOP AT WEST POINT.

WE engrave herewith a Cadet Hop at West Point—a scene familiar to the happy people who spend summer days at Cozzens's at West Point.

During the summer—that is to say, from 17th June to 30th August of each year—West Point camps out and hates its trade. The boys are taught to sleep under the canopy of heaven, to dispense with all the luxuries and comforts of civilization, and to accustom themselves to the privations of actual warfare. The strictness of West Point discipline has long been proverbial; during "the encampment" it is severe indeed.

Happily the rigors of military etiquette are mitigated thrice a week by balls or hops, which are given by the cadets to their friends and the guests at Cozzens's and elsewhere in the neighborhood. These gay parties are justly famed among the fair sex; for better or more indefatigable dancers than the cadets are not to be found even in New York. Pretty girls who go to West Point to spend a few days in the bracing air, and enjoy the lovely Hudson scenery, invariably declare that they never enjoyed any ball in their life so much as the Cadet Hop.

The following gentlemen are the managers of the hop, and to them our artist desires to return thanks for the attention paid him on his professional visit:

CADETS.

Nicholas Bryant.	S. Dodson Bronson.
John R. B. Bantwell.	John Adair, Jun.
Frank Hagar.	Adelbert Ames.
Wm. G. Jones.	Nathaniel K. Chamblin.
Josiah H. Kellogg.	Campbell C. Emery.
Wesley Merritt.	Charles E. Hazlett.
Morsen Porter.	Charles McE. Lemon.

Henry W. Kingsbury.

THE NEW ORLEANS CHARITY HOSPITAL.

THE city of New Orleans claims a proud preeminence in her benevolent institutions, and in none is the more honorably represented than in the noble hospital which we have the pleasure of engraving herewith.

The New Orleans Charity Hospital is one of the most celebrated institutions of its kind in the United States. Not only so, but in the liberality of its support, the commodiousness of its buildings, the systematic excellency of its curative arrangements, the number of its beneficiaries, the superior skill of its attending physicians, the admirable neatness of its domestic appliances, and the impartial catholicity of its administration, it will compare favorably with the older and more renowned establishments of England and the Continent.

The hospital is located on Common Street, immediately contiguous to the medical colleges of the city. This statement will indicate the superior facilities enjoyed by these institutions for affording to their pupils daily the most interesting practical exemplifications of the theoretical teachings of the lecture-room. Nor is it amiss to say, that whether or regard be had to the ability of the Professors or to the admirable advantages offered to the pupil, there is no better place in this country than New Orleans for young men who are studying to enter the Medical profession.

The external aspect of the hospital is rather imposing. Entering by the main door-way, and looking to the right, your eye at once rests upon a neat marble tablet, embedded in the wall, bearing the following legend:

THE CHARITY HOSPITAL OF NEW ORLEANS
WAS FOUNDED IN THE YEAR MDCCLXXIV BY
DON ANDRES ALMONASTER Y ROJAS,
TO WHOM GOVERNOR BROWNELL, THE BENEFICENT
OF THE
LEGISLATURE OF THIS STATE,
AND THE LEGISLATURE OF THE
STATE OF PENNSYLVANIA,
THE CONSTANT IN ENGLISH FOR THE MEANS OF
RESTORING THIS INSTITUTION
IN THE YEAR 1833,
HIS FELLOWCITIZENS A. D. MDCCLIX HAVE DECREED
AND ERECTED PRESIDENT OF THE LEGISLATURE,
TO WHOM WHICH, AND HONORING SEEKING THE NAMES
AND CONTRIBUTIONS OF THE DISTINGUISHED
BENEFACTORS.

THE CHARITY HAS BEEN ERECTED.

EXTERNE FUND	$1,000
SOCIETY CASTLE	$1,000
JULIEN PETERSAL Bust,	
ERASED bequeathed	$25,000
.....	

A glance at the engraving shows the principal building to be three stories high. This part of the establishment is devoted to the care of the thousands who annually seek, in this charitable refuge, alleviation for the countless ills that afflict our frail

THE NEW ORLEANS CHARITY HOSPITAL.

Fig. 1. The amphitheatre, wards and exterior of the Charity Hospital as they appeared in 1859.

potent incantation a pallid host would they be, more terrible in their grim silence than army with banners. Here they lie, rotting with syphilis and bloated with dropsy; eaten by horrid cancers and fetid with disgusting ulcers; locked in the awful rigidity of tetanic spasms, or limp in the serene composure of an easy sleep; misshapen with ugly tumors, and distorted by the sharp pangs of rheumatic disorders. Here may you look in upon them, by the sickly glare of the early gas light, lying together, from the beardless boy to the man of old—'crooked-backed, tooth shaken, and bleareyed.' As we walked through the dismal charnel-house, nervously clutching the arm of our accomplished cicerone, Dr. ————, of the University of Louisiana, imagine our horror to see him seize an idle brush, and, with artistic twirl, slap a cross-mark upon the bare breast of a lately expired wretch, exclaiming with the gusto of a connoisseur in dead flesh. 'This is mine.' Our friend, you should know, is one of the anatomical demonstrators in the University and from these dead bodies it is that they select their subjects for dissection. Not less than 150 are sawed and slashed up in his medical school in one season—so he told us.

"We send you a sketch of the Amphitheatre where, on each Wednesday the professors of the Medical Schools hold their cliniques. One of the most exciting spectacles to be witnessed in the institution is seen when fifty or a hundred students crowd the couch of some patient who is about to undergo an important surgical operation. The trembling expectancy of the terrified subject; the nervous pallor of the medical tyros, who are about to see a man's leg or arm whipped off for the first time; the careless nonchalance of the hospital *habitués;* the giant form of that veteran man of the knife, Dr. Stone, as with cuffs thrown back, eye all ablaze, and lips firmly clinched, he prepared to make the adroit thrust; the quick prefatory whirl of the well-grasped blade; the sudden flash of the polished steel; the dull, muffled sound of the yielding flesh, the spurt of the blood, the scrape of the keen edge upon the solid bone, the sharp cry of the patient, followed by the heavy moan of pain—these are the outline of a picture that thrills and terrifies the uninitiated beholder."

During the Civil War and reconstruction days the hospital experienced desolation and poverty. Often the hospital was filled with malingerers who feigned illness because of their need for lodging. Conditions improved gradually. In 1879 needed repairs were made and essential materials purchased, and soon Charity Hospital was better equipped than at any time previously. In 1884 a morgue was constructed which also provided a Pathological Laboratory and Museum of Pathology. The next year the ambulance service was established, and in the following year Listerian measures were introduced in the obstetrical and surgical services. In 1895 a spacious surgical amphitheater replaced the old one, where surgical operations frequently had followed autopsies on the same table. To provide for the rapidly growing institution many additional buildings were erected in the years that followed.

When the main building of the Charity Hospital was one hundred years old in 1933, the occasion was appropriately observed. The facilities at Charity Hospital were then clearly outmoded and inadequate. In 1936, with the aid of a Federal Government grant, appropriations were made for a magnificent, new twenty-story building which was completed and occupied early in 1940.

MEDICAL CARE AT CHARITY HOSPITAL

During the two hundred years of the hospital's existence the patients were first under the care of slaves, then medical students, and finally interns—at all times under the supervision of visiting physicians and surgeons. When the Medical College of Louisiana (Tulane) opened in 1835 the care of the sick, previously in the hands of slaves, was entrusted to six medical students who, during their school term and in exchange for board and lodging, assisted the House Surgeon and also carried out minor surgical procedures. At the end of the school term only a few of these students could be induced to remain because of the

prevalence of yellow fever in the summer.[2] In later years these "resident students" served two years and were selected by competitive examinations from the medical students who had completed one year of study. Their duties now required them to accompany "the visiting physicians in their daily ward rounds, to write prescriptions, attend to the exhibition of medicines, supervise the nurses, watch the patients and carefully follow out all instructions of the attending physicians to the minutest details."[5] Later, the answering of ambulance calls became an added duty. Excellence in the service was encouraged by yearly examinations and the granting of awards to those who ranked highest.

At the turn of the century, resident students were required to have completed three sessions of the medical course before they became eligible for the position. In 1911 it was recommended that the applicants be graduates of an approved medical school, and thereafter the resident students were designated "interns."

For several years after 1891 the hospital also employed beginning students to serve as "externs," who assisted in the outpatient clinics and in the pathologic department.

A profound change in the administrative personnel was made in 1912 subsequent to an expert investigation conducted by Dr. S. S. Goldwater. In addition to the office of superintendent, there were instituted the positions of resident house officers: two in surgery, one in medicine, and one in gynecology and obstetrics. These house officers were selected from graduates who had served a two year internship at Charity Hospital. They devoted their full time to the hospital, supervising the interns and administering to emergency cases. The Goldwater report also outlined in detail the duties of interns. Fellowships in certain specialties were established in 1928, and selections for these positions were made from the interns who had served one year.

At present, all ward and clinic services of the hospital are assigned under the unit system, 40 per cent to Tulane University, 40 per cent to Louisiana State University, and 20 per cent to physicians and surgeons who have no teaching affiliations. The clinical faculties of the two medical schools and the independent physicians are responsible for the training of the first and second year interns and residents who are assigned to their respective services. By means of a planned program of specialized training extending over several years, the hospital staffs prepare residents for certification by the various medical specialty boards.

MEDICAL EDUCATION AT CHARITY HOSPITAL

With the vast storehouse of clinical material available at the New Orleans Charity Hospital, it was inevitable that groups of physicians should make use of this material for medical education. No sooner had the main building been completed in 1833, than a medical school made use of its facilities. Since then numerous other groups, either in opposition or in collaboration with previously existing medical educational groups, have attempted to found undergraduate and graduate medical schools. These attempts, abortive though they may have been, resulted in the establishment of two definitive medical institutions, which now exist within Charity Hospital. These are the medical schools of Tulane and Louisiana State University. Outstanding among the short-lived group of medical institutions associated with Charity Hospital and deserving of more than passing mention is the New Orleans School of Medicine (1856-1870), which but for the Civil War might well have continued as one of the outstanding national medical centers.

SCHOOL OF MEDICINE OF THE TULANE UNIVERSITY OF LOUISIANA

In 1834 the first medical school in New Orleans, the Medical College of Louisiana,[6] came into existence, organized by a group of young English speaking physicians who had recently arrived in the former French colony. Soon after the plans for this school had been announced, the older French physicians, resenting the encroachment of these new arrivals, organized an opposition school, the Medical College of New Orleans, which, however, failed to materialize. The first session of the Medical College of Loui-

siana began January 5, 1835, with eleven students enrolled. The medical course consisted of two annual sessions for four months each. At first the lectures were given in the homes of the professors, and demonstrations at the bedside were conducted in the wards of Charity Hospital.

Rivalry and jealousy prevented the school from prospering during the early years of its life. In spite of this the school's value was recognized by the state authorities. They encouraged the faculty materially, supplying a building for the school and in return the faculty provided medical care for the sick at Charity Hospital. When the independent physicians of New Orleans learned of this arrangement, they offered their services free of charge. Thus Charity Hospital acquired two groups of visiting physicians: the faculty during the school session in the winter and the independent physicians during the summer.

In 1848, when the school became affiliated with the University of Louisiana, the medical department occupied a new building which was said to be most adequately equipped for teaching medicine. The structure, located a short distance from the hospital, held three large lecture rooms seating three hundred, a hall for a museum, and several large dissecting rooms. From this time on, the fame of the school increased and students were attracted in large numbers, so that in 1859 the school ranked fifth in number of students in the United States. Three years of study were required for graduation, the first year under a private tutor and the last two years in the medical school. The curriculum included 32 hours of lectures: anatomy, five hours; pathology and physiology, four hours; theory and practice of medicine, six hours; surgery, five hours; obstetrics and diseases of woman and children, four hours; materia medica and therapeutics, four hours; and chemistry, four hours.

With the outbreak of the Civil war, the medical school closed its doors as its students and faculty marched off to the battlefield. At the end of the war the school was reorganized.

In 1882 Paul Tulane became a benefactor of the University of Louisiana and soon thereafter the school adopted its present name. Today the School of Medicine of the Tulane University of Louisiana occupies the Richardson Memorial building on the university campus and the Hutchinson Memorial building adjacent to Charity Hospital.

In 1906 Tulane University absorbed the New Orleans Polyclinic, the most outstanding graduate medical school in the South. The Polyclinic, founded in 1888, had on its faculty some of the ablest clinicians of the South headed by Dr. Rudolph Matas and Dr. Charles Chassaignac. It attracted physicians from both North and South America because it afforded the unusual clinical facilities of Charity Hospital, the Eye, Ear, Nose and Throat Hospital and of the New Orleans Sanitorium. It may be noted here that the renowned Tulane School of Tropical Medicine had its incipiency in the Polyclinic.

NEW ORLEANS SCHOOL OF MEDICINE

In 1856 the New Orleans School of Medicine was established. It was to have a brilliant though brief career. Its capable and progressive staff included a group of distinguished physicians headed by Dr. Erasmus Darwin Fenner. Dr. Fenner, who was the founder in 1844 of the still extant New Orleans Medical and Surgical Journal, had studied methods of clinical education in various European centers. He was eager to see these methods applied at Charity Hospital where the clinical resources were comparable to those of Vienna or Paris. The New Orleans School of Medicine "resolved at its inception to quit the beaten track so long pursued in this country, and to strike at once for the latest improvements in teaching, which have been established in the greatest Medical Institutions of the day."[7]

Rivalry was keen between the newly founded school and the established Medical College of Louisiana (Tulane). To protect themselves the students of each school

marched in groups from their lecture halls to the hospital. At times they threw missiles at each other and clashes were not infrequent.

The New Orleans Medical School suspended operations at the outbreak of the Civil War, and though it was reopened in post-war days, it never regained its former eminence and finally closed in 1870. A few years later an effort was made by some of the former faculty members to organize the Charity Hospital Medical College but this new school fared poorly and ceased to operate in 1878.

LOUISIANA STATE UNIVERSITY SCHOOL OF MEDICINE

The present Louisiana State University School of Medicine represents the culmination of a protracted effort begun in Civil War days to incorporate a medical school in the state university. The first attempt is noted in the establishment of the Special School of Medicine at the predecessor of Louisiana State University, the Louisiana State Seminary of Learning, (1866-67).[8]

The charter granted to Louisiana State University in 1877 authorized the establishment of a medical department. In the years to follow, frequent plans for the founding of a medical school failed to mature.[9] The Louisiana College of Medicine founded in 1906, the New Orleans Post Graduate School of Medicine in 1914, the Loyola Post Graduate School of Medicine in 1917, all represent efforts to provide the state university with a medical school. These attempts failed.

With the expansion of Louisiana State University in the late 1920's the proposal for a medical school was again considered and this time the plans succeeded. The Board of Administrators of Charity Hospital approved the erection of a medical school building on the grounds of Charity Hospital, and the first session of the Louisiana State University School of Medicine began in the fall of 1931. The faculty was composed of prominent physicians, many of whom had been on the faculties of Tulane and the defunct Loyola Post Graduate School of Medicine. The first class to receive its full four year training at the new school of medicine graduated in 1935. The present enrollment in the four classes is 336

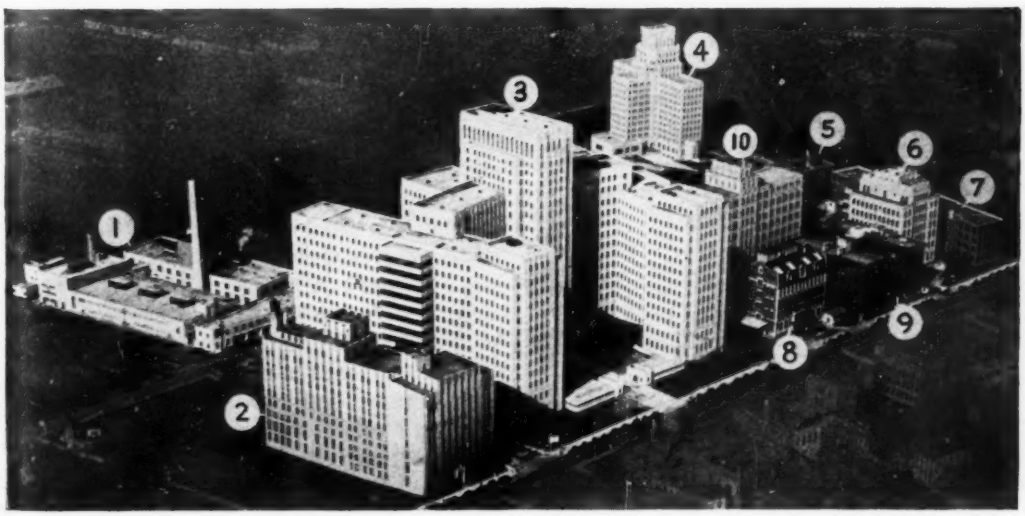


Fig. 2. The Charity Hospital group (1942). (1) Auxiliary buildings comprising laundry, garages, warehouse, power plant, ice house, animal house, incinerator, auto repair and paint shop. (2) Hutchinson Memorial Building, School of Medicine, Tulane University. (3) New main hospital building. (4) School of Nursing and Nurses' Residence. (5) Sisters' Home Building. (6) Lapeyre Miltenberger Home for Convalescents. (7) John Dibert Tuberculosis Hospital. (8) Delgado Memorial Charity Hospital. (9) Richard Milliken Memorial Hospital (10) Louisiana State University School of Medicine.

students, the majority of whom are residents of Louisiana.

Thus we have seen how, in the course of its history, famous Charity Hospital has provided clinical facilities to quite a number of medical educational groups. Today Charity Hospital is an institution of over 3000 beds with an annual admission of 63,852 patients (1939-40). To its outpatient clinics 463,803 visits are made. An average of 49 operations is performed daily, a total of 18,073 during the year, and over 1500 autopsies were done during the past year. In the obstetric service more than 5000 new births are listed.

The vast amount of clinical material at Charity Hospital is used by two medical schools whose students assist the house staff in both the wards and clinics. A visitor who wanders through the buildings may notice groups of students examining patients at the bedside or in the clinics, assisting at deliveries or giving anesthetics to the surgical patients. Larger classes of students may be seen at clinical sessions in classrooms on various floors of the hospital. In each of the two spacious amphitheaters as many as 250 upper classmen may be attending a diagnostic clinic, while later the same group may be seen at a clinico-pathologic conference in the large pathologic amphitheater.

The New Orleans Charity Hospital, with its 150 interns, 110 residents and a visiting staff of about 450 physicians, its two associated medical schools with 700 students, forms a very important part of our nation's medical educational facilities.

REFERENCES

1. Fossier, A. E.: The Charity Hospital of Louisiana, New Orleans M. & S. J., 75:728, and 791, 1922-23; 76:24, 67, 128, and 188, 1923-24.

2. Historical Sketch of the Charity Hospital, New Orleans M. & S. J., 1:72, 1844.

3. Hospital Reports, New Orleans M. & S. J., 3:559, 1847.

4. The New Orleans Charity Hospital, Harper's Weekly, 3:569, 1859.

5. Report of the Board of Administrators to the General Assembly of the State of Louisiana, 1880, New Orleans, Democrat Print. p. 5, 1881.

6. Fossier, A. E.: History of medical educational in New Orleans from its birth to the Civil War, Ann. Med. Hist. 6:320, 1934; 427, 1934. Fossier, A. E.: The centennial of medical education in New Orleans, New Orleans M. & S. J., 87:501, 1935. Bass, C. C.: The School of Medicine of the Tulane University of Louisiana, New Orleans M. & S. J., 87:506, 1935. Matas, R.: The influence of the last 100 years of medical education on the culture, growth and prosperity of New Orleans, New Orleans M. & S. J., 87:514, 1935. Marshall, M. L.: Thomas Wade, medical student, 1851-52, Ann. Med. Hist., 1:343, 1939.

7. Fenner, E. D.: Remarks on clinical medicine, New Orleans M. News & Hosp. Gaz., 4:458, 1857.

8. Postell, W .D.: The Special School of Medicine of the Louisiana State Seminary of Learning, Surg. Gynec. & Obst., 70:980, 1940.

9. Wilkerson, M. W.: Thomas Duckett Boyd, the Story of a Southern Educator, Baton Rouge, Louisiana State University Press, pp. 225-239, 1935.

ASTHMA THEN AND NOW
THE LIFE OF HENRY HYDE SALTER

VINCENT J. DERBES, M. D.*
NEW ORLEANS

The past twenty-five years have witnessed a tremendous increase in the knowledge of asthma. So marked has this been that it is apt to be forgotten that much was known in the middle of the past century and to rediscover old facts. In the early sixties Salter wrote *"On Asthma"*[1] a book which summarized in a remarkable way what he had learned in a lifetime of study of this condition.

The author,[2,3,4] a son of Thomas Salter, a well known surgeon, was born in Poole, Dorsetshire, England in 1823. He was educated under the eye of his father. In 1844 he matriculated at the University of London and entered the general literature department of King's College, having already gained enough medical information to be able to compete successfully for the prize of the King's College Medical Society while yet a student in the academic school. This prize was for an essay, the subject of which was the disease of the valves of the heart. After two years' study he took a B. A. in 1846 and at once passed into the Medical Department. Here he devoted all his powers to his work and succeeded in gaining a much sought after scholarship. He gained other distinctions during his student career, and in 1849 was appointed demonstrator in anatomy. In the same year he took the

*From the Department of Medicine, Tulane University School of Medicine, New Orleans, La.

degree of M. D. of the University of London. Shortly afterwards he became a member of the College of Physicians, of which he was elected a Fellow in 1856, being the youngest Fellow of the College, and likewise the youngest member of the Royal Society to which he was shortly afterwards elected. In addition to his college work he labored assiduously at the hospital and was house physician. In the autumn of 1851 he entered practice. In 1854 he was appointed lecturer on physiology at the Charing Cross Hospital to which he became assistant physician the following year. He held the chair of physiology for 12 years and then succeeded to the lectureship in medicine, becoming in 1866 physician to the hospital.

Salter had himself been a sufferer from asthma, and early in his career he turned his attention especially to chest disorders, and began to collect materials for a work on his own malady. He had suffered from hay fever and hay asthma and described his symptoms accurately, though pollinosis cases had been accurately described earlier by Bostock, Phoebus and others. He was, however, the first to describe asthma due to animal emanations. His description of his own case is so interesting that it is quoted in detail.

"Cat-asthma—This singular phenomenon is, I imagine, almost peculiar to myself. The cause is the proximity of a domestic cat; the symptoms are very similar to those of hay-fever, and are occasioned by some sudden influence inappreciable by the senses. I believe some asthma would present itself if I were sitting by the fire and the cat sleeping on the hearth-rug; but the effect is much greater when the cat is at the distance of one or two feet, or still closer; it is still further increased by the raising of the fur and moving and rubbing about, as is the habit of cats when they are pleased, also by stroking their fur; but most of all when they are in the lap just under the face. The influence seems to be stronger in kittens from two months old and upwards than in full-grown cats. Having been almost always accustomed to cats, I have had abundant opportunity of testing the peculiarities of this singular phenomenon.

"The symptoms closely resemble those of hay-fever, with only such difference as might be expected from the near proximity of the cause, from its defined and local nature, and also for the facility for its entire and immediate removal. The asthmatic spasm is immediate and violent, accompanied with sneezing and a burning and watery condition of the eyes and nose, and excessive itching of the chin, which may also extend to the chest and between the shoulders; the eyes are injected, and instinctively avoid the light, and the caruncles are more or less enlarged. I believe if the cause were suffered to continue, all or most of the other symptoms of hay-fever would ensue, only with a more excessive and conspicuous asthma. After the removal of the cause the symptoms begin immediately to subside, and if the paroxysm is not very severe the cure is effected in five or ten minutes, leaving a tendency to mucus at the top of the windpipe, which being repeatedly removed in the ordinary way, the last symptom disappears.

"This includes all I have to say respecting the cat-asthma; but I shall here notice the evidence of the more general influence of cats on my system—of the existence of which I am disposed to call cat-poison.

"The symptoms of this poisoning are consequent on touch or puncture. The eyes, lips, and cheeks are susceptible of the effect of touch, but a puncture of the claw affects equally any part of the surface of the body. The eyes are more readily affected than the lips, and the lips than the cheeks. I have often known the eyes and lips most painfully affected by being touched by the fingers after handling a cat. The eyes would at all times be affected by this means, but I do not think the lips would, unless there were some little crack or flaw in the skin. The effect on the eye of rubbing it just after touching a cat is to produce a hot, stinging irritation, a profuse flow of

tears and injection of the whole eye, a tender, painful swelling of the carunculae and intolerance of light. The result on the lips is a general enlargement and sometimes a lump or protuberance at the part principally affected, together with a feeling of heat and irritation. If the cat rubs against the face, the cheek immediately becomes hot, a little swollen, and of a suffused red; sometimes there appears a defined little protuberance, something like nettle-rash, which I imagine is produced by the puncture of a hair.

"The wound from a claw, whatever be its form, is always surrounded by a white, hard elevation or wheal, very much resembling the appearance consequent on the sting of a nettle. The pain, which is very much greater than attends ordinary scratches, is accompanied by a feeling of irritation and itching, like the pain of the scratch and a nettle-sting combined.

"The saliva of a cat is perfectly innocent, and a bite with the tooth in no way differs from ordinary wounds of the same character; in a word, I believe the influence is, in its source, exclusively cutaneous."

He died on August 31, 1871, after a tedious illness, from abscess of the lung.

Although the allergic concept was not to appear until the turn of the century and Salter's observations would be explained differently today, he had a remarkably complete grasp of the agents which may precipitate an attack of asthma. He conceived the actual mechanism to be bronchial narrowing due to: (a) plugs of tenacious mucous; (b) exudation thrown out in the submucous areolar tissue; (c) congestive or inflammatory thickening of the mucous membranes, or (d) contraction of the circularly disposed smooth muscle. He believed asthma to be a nervous condition initiated by various externals. He classed these according to things inhaled, alimentary irritants, and psychic stimuli.

Many of the allergens mentioned by Salter have been rediscovered by later workers. Of the things inhaled he considered house dust to be the worst, and most apt to produce asthma. He had known asthmatics who could not tolerate the least dust. A remarkable case was a clergyman allergic to rabbit dander who was always able to detect poaching parishioners by the wheezing induced by the rabbits hidden in the recesses of their garments.

He believed "peptic" asthma to be the most common of all the varieties, in which the induction or prevention of attacks is entirely controlled by the state of the digestive organs. Some error of diet, the eating of some particular thing, eating too much or too late in the day he considered sure to bring on an attack. On the other hand, he considered a certain dietetic abstention was as certain to be attended with immunity to the disease. This he explained as due to either pneumogastric stimulation (as the vagus is the only single structure with a distribution common to the lungs and alimentary tract) or to the venous system. "It is," he stated, "in this way, by the actual presence in the vessels of the lungs of the materials taken up from the stomach and intestines, that the introduction of food gives rise to bronchial asthma. A contaminant blood is the irritant; by this I do not mean that the material is necessarily peccant; it may be perfectly normal and yet cause asthma."

In view of Duke's[6] work on physical allergy, Salter's patient in whom application of cold to the instep was invariably provocative of an attack, is particularly interesting. He considered this case to be due to psychic stimuli and listed other instances in which sudden or violent mental emotion would bring on an attack. There was the child who had asthma when scolded; the man who had attacks on two occasions because he thought he had administered an overdose of belladonna to his wife; and the patients in whom venereal excitement produced asthma. He recognized that the immediate effect of emotion is always to cut short the asthmatic spasm if it exists. He describes cases in which sexual intercourse or onanism relieved paroxysms. He wrote of a doctor who had an attack of asthma

while seeing a patient, got on his horse to ride back for some ipecac; the horse ran away with him and when finally he had the animal under control his asthma had disappeared.

Salter had no doubt that asthma is hereditary. In 40 per cent of his 226 cases other members of the family had the disease. He observed that there is no time of life at which asthma may not make its appearance from the earliest infancy to old age. He knew that the cases that come on in early life are usually secondary to the bronchial disorders of childhood—bronchitis, measles and whooping cough. Those that come on late in life are commonly cases of organic asthma. Dividing life into decades, his cases showed that most started in the first decade with a sudden fall in adolescence and after this there was a gradual rise up to 40. He remarked that "there is something in addition to vascular change in the bronchial tubes and organic lung damage to account for this decreased incidence. This something is undoubtedly the asthmatic tendency or idiosyncrasy. As each year is added, an individual is decreasingly likely to be exposed for the first time to the exciting cause of the disease; if anyone has the asthmatic tendency within himself it is not likely that he will travel far in life without the exciting cause presenting itself."

His symptomatology of asthma differed in no wise from that which we now recognize. His diagnosis as to bronchial asthma was identical with ours but, of course, the etiologic allergic study was non-existent.

The list of drugs used eighty years ago is remarkable in its similarity to those used today. It is true that the drugs on which physicians place main dependence today, that is, ephedrine, epinephrine and aminophyllin, were not yet on the scene but the long list of subsidiary drugs is strikingly parallel to ours. It includes: stramonium, burned niter paper, chloroform and other inhalations, hyoscyamus, squill, potassium iodide, lobelia, ipecac, alcohol, and tobacco (to be smoked, as a strong cigar or pipe, to the point of nausea). Opiates were used then as now but Salter opposed their use for he had rarely seen opium do good and had often seen it do harm; by producing lethargy and by lowering sensibility it prevents the acute and prompt perception of respiratory arrears. Finally it causes muscular spasm of the bronchi. It is of interest that the consensus of allergists today is the same.

The general and dietetic treatment of asthma in Salter's day is equally valid now. He recognized that asthmatics are often dyspeptics and hence their food should be plain, well cooked and contain the proper proportion of animal and vegetable elements. The patient should eat only twice a day to avoid having a full stomach when he retires. Asthmatics should avoid the foods they have found to cause trouble.

At the present time an attempt is made to determine whether the asthma is of the intrinsic or extrinsic variety. If it is of the latter type a search is made for the offending substances, by a combination of a careful history and proper skin tests. It may be well to point out that while the skin test is a very valuable laboratory procedure, it has the same limitations which are inherent in all such procedures.

Materials for testing should be selected in view of the circumstances surrounding the case. For this purpose the history may be of inestimable value in directing the attention to certain possible agents which may be responsible for the onset of attacks. Further proof of this relationship is obtained by positive skin reactions to non-irritant diagnostic solutions, or at times by means of therapeutic trial. As Tuft points out, the latter method is more frequently utilized in those non-sensitive types of allergic asthma in which clinical sensitivity may exist even in the presence of negative skin reactions. This is particularly true of sensitivity to food allergens.

Today the specific method of treatment of asthma is used whenever possible; as in the case of all other allergic diseases this is dependent on the etiologic factors unearthed

by the diagnostic survey. It may be summed up, then, by saying that therapy consists in the elimination of the offending agents whenever this may be done. When this is not feasible for one reason or another, specific or non-specific desensitization is inaugurated. Naturally certain materials are more readily avoided than others; these would include foods, animal danders, orris root, pyrethrum and the like. Contrariwise, it is virtually impossible to escape from pollens and to a lesser extent, this is true of house dust, a potent cause of asthma. In this latter case contact should be reduced to a minimum by the use of dust proof pillow and mattress covers and at the same time an attempt should be made to increase the patient's tolerance by desensitization. Starting with small doses of the appropriate extract, increasingly large amounts are given until the symptoms are under control, a maintenance dose then being given. Avoidance of dust may be sufficiently complete to relieve the asthmatic episodes but more generally desensitization is required. It is impossible to avoid pollens, of course, unless the patient removes to a locality where these do not occur. In such cases the relief is usually but temporary because new sensitizations will often develop.

Administration of bacterial vaccines is often employed, frequently with great benefit; this is especially true of those individuals in whom there is a complicating sinusitis or chronic bronchitis. There is some controversy as to whether stock vaccine is to be preferred to autogenous or vice versa. It is felt by the proponents of stock vaccine that the superficially lying saprophytes are utilized in autogenous vaccines whereas the pathogens are more deeply embedded and are less apt to be expectorated. Assuming that there is a suitable vaccine, the dosage is determined by the patient's response. If upon the administration of say, 0.1 c. c. of a vaccine containing 5,000,000 organisms per cubic centimeter, the patient becomes worse, it is concluded that the dose was excessive and less is given next time; if the patient feels better the dosage is maintained; if on the other hand, no change is apparent, the patient has received an inadequate amount of vaccine. Of course, if correct vaccine is not being used, no change of any type will be observed.

Numerous forms of non-specific therapy are also employed; intravenous typhoid vaccine, milk injection, peptone, tuberculin and autohemotherapy. Roentgen ray and physical therapy belong in this same category. Naturally no form of non-specific treatment should be employed until a reasonable opportunity for relief, based on allergic principles, has been afforded. A word concerning lipiodol may not be out of place. It is the consensus among allergists today that lipiodol is a dangerous drug to use in routine therapy; the occasional patient may receive spectacular relief, more generally there is no benefit, and not rarely, death. In a large allergy clinic in Oklahoma the mortality rate in their asthmatic patients went up 500 per cent when lipiodol was widely employed.

As Tuft points out, the value of surgical measures for the relief of asthma is not sufficiently definite to warrant their employment except as a last resort in the hopelessly intractable asthmatic.

Salter observed that change of address would often cure asthmatics; this is of value because of the escape from environmental allergens. In the less fortunate economic brackets I observed dramatic relief when the patient moved to one of the new Federal Housing Projects. As a general rule, however, change of environment is indicated in only a small percentage of asthmatics in whom a dry, warm, equable climate exerts a beneficial effect; especially is this true in patients who develop sinusitis or chronic pulmonary complications.

REFERENCES

1. Salter, Henry Hyde: On Asthma, 2nd ed. John Churchill & Sons, London, 1868.
2. Obituary: Hyde Salter, British M. J., 2:278, 1871.
3. Obituary: Hyde Salter, The Lancet, 2:415, 1871.
4. Obituary: Med. Times and Gazette, 2:363, 1871.
5. Duke, W. W.: Asthma, Hay Fever, Urticaria and Allied Manifestations of Allergy, C. V. Mosby Co., St. Louis, 1926.
6. Tuft, Louis: Clinical Allergy, W. B. Saunders Co., Philadelphia, 1937.

AN UNDESCRIBED FLUOROSCOPIC FINDING IN SOLITARY ABSCESS OF THE LIVER

CASE REPORT

E. A. FICKLEN, M. D.
NEW ORLEANS

This case is reported primarily because of a most unusual fluoroscopic finding, which may or may not turn out to be of value in the diagnosis of these obscure cases. Evarts Graham has sagely observed that even though all signs and symptoms be present, doubt may persist regarding the presence of suppurative disease in the liver, its character and extent. To put it briefly, the average time which elapses between the onset of symptoms and the establishment of a positive diagnosis is at present far too long.

Cases which show elevation and fixation of the diaphragm, cases which show changes in the cardiophrenic and costophrenic angles and particularly cases which show pulmonary signs are all of them far advanced. In a case under my personal observation six months had elapsed between the onset of symptoms and positive x-ray findings. The patient had lost 45 pounds and had been subjected to much unnecessary expense and suffering.

CASE REPORT

W. F., aged 31, gave a history of persistent diarrhea in 1937. There was mucus but no blood in the stools. After the diarrhea had lasted about two months he wrote to a cousin who advised him to take anayodin. He took 30 or 40 tablets over a period of about 30 days and had some relief. He did not feel entirely well and went to the Marine Hospital, New Orleans, where he remained four weeks. X-ray examination revealed a gastric ulcer and some trouble with the appendix. No amebae were found.

Three years later he had an acute attack of pain in the right lower quadrant. He was seen by a competent surgeon who told him he had an acute attack of appendicitis and should be operated upon. He did not follow this advice and after about ten days recovered and went back to work. There is nothing else of note in his past history. He had been an excellent athlete at college and during his Senior year he weighed 189 pounds. After leaving college his weight gradually dropped to 170 pounds, which he regarded as being normal. In the past six months his weight dropped from 170 to 153 pounds. He ascribed this to stomach trouble. When asked to describe this stomach trouble he said that he had indigestion with nausea and vomiting every Friday if he ate fish from the market. He stated emphatically that fresh fish did not cause indigestion.

Present Illness: On November 29, 1941, he awoke with a heavy feeling in his stomach. There was diarrhea all day but no nausea. At 2 a. m. the next morning he was awakened with a severe pain in the epigastrium. He felt by turns chilly and feverish but did not take his temperature. In spite of the location of the pain he was convinced that he had an attack of appendicitis. He refrained from eating and put an ice bag on the right lower quadrant. He took several doses of paregoric with little or no effect. He vomited several times during the afternoon and night of November 30. On December 1 he called at my office. Examination showed a tall muscular individual apparently suffering a moderate degree of pain. The temperature was 99, pulse rate 86, blood pressure 120/80. Both lobes of the liver were found to be enlarged, the border of the right lobe extending four finger breaths' below the costal margin. There was some tenderness over McBurney's point but most of the tenderness was found in the epigastrium distinctly to the left of the midline and at the level of the cartilaginous termination of the seventh rib. The pain was not increased on deep inspiration. There was no friction rub.

He was sent to the Southern Baptist Hospital for a short gastrointestinal series and the following was reported: "Stomach, six hour observation, empty; food column in sigmoid; hypermotility. Stomach negative and duodenum negative. Pressure on the stomach near the pylorus causing filling defect. Spleen enlarged." He now began to complain bitterly of dysphagia. When his stomach was empty he felt fairly comfortable but the ingestion of even the smallest quantities of food caused intense pain which lasted about one-half hour.

On December 2 and 3 he had a number of chills followed immediately by fever, height unknown. On December 4 he was admitted to the Southern Baptist Hospital. On admission the temperature was found to be 102, pulse rate 92 and respiration 28. The following laboratory findings are of interest: On December 4 the red blood cell count was found to be 4,000,000, hemoglobin 76 per cent, white blood cells 12,000, small mononuclears 19, neutrophils 81. Blood culture on December 6 was negative. Sedimentation index taken on December 6 was 28 mm. Observation at 30 minutes showed 26 mm. of sedimentation. December 7 the white cell count amounted to 17,500, small mononuclears 14, 2 large mononuclears and 84 neutrophils. December 9 the white cells numbered 13,800, small mononuclears 22, neutrophils 78. On December

12, two days after operation, the red cells were 3,600,000, hemoglobin 69 per cent, white cells 17,100, small mononuclears 7, large mononuclears 1, neutrophils 92. Agglutination test for *B. proteus* positive in 1-40 dilution. Paratyphoid B weakly positive in 1-40 dilution. Agglutinations for typhosus and *B. abortus* were negative. Cultures for the dysentery group were negative.

The patient was given an initial dose of 4 grams of sulfathiazole followed by 1 gram every four hours. On December 7 the afternoon temperature rose to 102.1. December 8 the afternoon temperature was 102.3. December 9 the afternoon temperature rose to 102.8.

Dr. P. H. Jones was then called in consultation. The patient was obviously acutely ill and Dr. Jones suggested the possibility of a perforation of an ulcer into the lesser peritoneal cavity. A flat plate was made of the diaphragm and reported "negative for pneumoperitoneum. Some irregularity about the psoas muscle on the left. It is not as well defined as on the right."

Pain on swallowing became steadily worse. On December 8, for the first time, the patient complained of pain in the left scapular region on deep inspiration. Again examination showed no friction rubs. On December 9, at the suggestion of Dr. Jones, a fluoroscopic examination was made of the liver and both halves of the diaphragm. This examination was conducted by Dr. Louis J. Bristow, Jr., with Dr. Jones and myself as observers. An area of increased density about 7 cm. in diameter was easily detected under the left half of the diaphragm. The midclavicular line bisected this area. We assumed that an abscess in the left lobe of the liver had been visualized. The entire liver shadow was then explored but no other dense areas were observed. The movements of the left half of the diaphragm were not restricted, the diaphragm was not elevated nor was there any alteration in its normal curvature.

Operation: December 10, 1941, under spinal anesthesia (28 mg. pontocaine in 3 c. c. 1 per cent glucose administered by Dr. A. Caine), the abdomen was opened by a transverse incision running from the tip of the ninth rib across to a point 1 cm. within the lateral margin of the right rectus muscle. All structures were divided in line with the skin incision. The left lobe of the liver, much enlarged, was encountered as soon as the peritoneum was opened. The exposed area was carefully walled off with large gauze rolls, after palpation of the right lobe of the liver and after palpation and inspection of the stomach and the first portion of the duodenum. It was found that the right lobe of the liver was much enlarged. It was evident that the change in the contour of the greater curvature of the stomach was due to hypertrophy of the liver. The left lobe of the liver was then explored. Palpation of the superior surface of the left lobe revealed an area of induration. From the digital examination it appeared that the abscess was pointing between the layers of the left suspensory ligament, which, of course, is an extraperitoneal area. The apex of the abscess cavity was invaded by the examining finger and approximately six ounces of pus evacuated from the abscess cavity. A specimen of the pus was preserved for culture. Twelve grams of powdered sulfanilamide were distributed into the operative field, some of it in the abscess cavity, some of it over the surface of the left lobe of the liver and some of it in the incision itself. Two cigarette drains were placed in the abscess cavity. The gauze rolls were removed and replaced by iodoform gauze. The incision was then partially closed, leaving the cigarette drains and the ends of the iodoform gauze protruding. One drain was removed in 48 hours, all drains were removed by the end of the sixth day. A transfusion of 500 c. c. citrated blood was given four days after operation. The course of convalescence was uneventful and he was discharged from the Hospital December 21, 1941. At that time the incision was almost healed.

On December 15 it was reported that the culture of pus from the abscess was negative for both aerobic and anaerobic organisms. A smear made immediately showed no amebae, but many extremely small gram-positive diplococci. The stool examinations made early in January, 1942, were negative for amebae.

COMMENT

It would seem after a very careful review of the literature that the most certain diagnostic implement is the intravenous injection of 25 c. c. of thorotrast on three successive days, to be followed by x-ray examination. This has been advocated and employed by Harry Koster of Brooklyn since 1932. The medical profession as a whole, however, apparently fears the long range toxicity of any radio-active substance. Thorotrast has these advantages: a diagnosis is quickly established in pylephlebitis; differentiation between single and multiple abscesses can be made with certainty. If examination is negative after the intravenous injection of thorotrast, it is certain that the suppuration, if present, is extrahepatic.

Had thorotrast been used in this case the diagnosis would have been established earlier. The author believes that exploratory puncture of the liver should be severely condemned. He further believes that were all unsuccessful exploratory procedures reported the list would be long and discourag-

ing. In a case seen personally many years ago a large venous sinus was encountered and the withdrawal of pure blood caused grave apprehension.

There is no question that if the position of the abscess is definitely known, and this position is such that it is readily accessible to a large bore needle, repeated aspiration accompanied by the use of emetine, is the treatment of choice, since it avoids a major surgical procedure.

The extraperitoneal approach to the abscess is certainly advisable, but if it is not used the careful walling off of the site of operation, together with the liberal use of powdered sulfanilamide, offers the patient a fair degree of protection from peritonitis.

SUMMARY

A demonstration of an increased area of density in the liver substance by means of the fluoroscope in a single case is not of much significance unless it is confirmed by further observation. I trust that suspected cases will be given a careful fluoroscopic examination in order to confirm this finding or to establish it as a rarity.

—o—

ARRHENOBLASTOMA OF THE OVARY

CONRAD G. COLLINS, M. D.†
WOODARD BEACHAM, M. D.†
AND
HERBERT J. SCHATTENBERG, M. D.*
NEW ORLEANS

Interest in masculinizing tumors of the ovary was first aroused in 1930 through the writing of Robert Meyer.[1] Since that time Novak,[2] Norris,[3] Dockerty and MacCarthy[4] and others have presented additional cases and excellent reviews of the subject. In 1941 Krock and Wolfermann[5] were able to collect but 70 cases of arrhenoblastoma of the ovary from the literature. We wish to add a case that recently came under our observation.

†From the Departments of Gynecology and Obstetrics and *Pathology, Tulane University of Louisiana, School of Medicine, and Charity Hospital, New Orleans, Louisiana.

CASE REPORT

H. G., a colored female, aged 42 years, was admitted to the hospital on January 2, 1939, at 10:40 a. m. Her chief complaint "backache" and amenorrhea of four months' duration. In September, 1938, patient menstruated for the last time. Previous to this she had noticed regular menstrual periods, in that they occurred once monthly, but that there had been a gradual decrease in amount of menstrual flow. She also had been troubled with very severe headache, lower abdominal pains and the passage of large clots.

The menstrual history was 11 x 29 x 4-5; entirely regular until about a year ago when change of color and in the amount of flow began. Since September she has suffered very severe aching pains in the back, especially in the lumbar and sacral regions, there being more of a pulling sensation than an actual pain. There has been absolutely no discharge of blood during the period from September, 1938, to the present time.

Head: Negative. E. N. T.: Has noticed no voice changes.

The past history revealed no previous hospitalization except for tonsillectomy in 1921. She has been well most of her life, except for usual childhood diseases, pneumonia, influenza, and yellow fever in 1905. Patient has been shaving once weekly for about 10 or 15 years.

Family history: Mother died of liver disease; father died in an accident. No history of tuberculosis, carcinoma, lues, mental disorders, kidney disease or allergy. One brother has "ulcers of the stomach."

Marital history: Married twice. Separated from first husband after two and a half years. One pregnancy, terminated at the third month due to a fall. Married to second husband 10 years, without becoming pregnant. She and her husband get along "very well."

Physical examination: B. P. 126/88, respiration 24, pulse 88, temperature 99 F. Head: Negative. General condition: Patient is a well developed, well nourished, intelligent, cooperative and oriented colored female about 42 years of age, who is apparently not actually ill. The voice is rather low pitched and more masculine than one would expect in a female. The skin is of a coarse texture and there is hypertrichosis; especially is there an abundance of hair about the chest, and much more hair on the face than is normal of her sex. The lymphatics are essentially negative. The pupils are equal, react to light and accommodation, no abnormalities. The thyroid is readily palpable but not enlarged and is not nodular. There is no rigidity. The thorax is well formed, muscular and symmetrical. The lungs are clear and resonant. The heart is not enlarged; there are no murmurs, thrills or irregularities. The abdomen is negative to

pathology. Genitalia: Multiparous introitus. There is a very large clitoris (7.2 cm.). Uterus is large and firm and is nodular. There are fibroids, seemingly pedunculated, which are attached to the uterus. The uterus is retroflexed. A mass, about the size of a small orange, is palpable in the cul-de-sac. Sedimentation rate, 1 hour plus. Masculine distribution of hair.

Laboratory: Urine negative. Blood chemistry: Urea nitrogen 15.4 mg. per 100 c. c., sugar 95. Roentgenograms: (Dr. J. B. Irwin) Lateral view of the skull shows no abnormality of the sella turcica or evidence of tumor or adrenal calcification. EPA of chest shows no significant increase in perihilar and peribronchial markings and no evident lesion in the lung parenchyma. Electrocardiogram showed evidence "suggestive of myocardial disease. Left axis deviation. R-2 low and notched on upstroke. P-2 and P-3 high." Blood: 80 per cent hemoglobin, 4,750,000 red blood cells, 7,500 white blood cells, differential normal, no parasites.

Preoperative Preparation: Enema and alkaline douche night previous to, and morning of, operation. Sodium phenobarbital grain 1 at bedtime. Morphia grain ¼ and atropine grain 1/150 hypodermically on call.

Preoperative Diagnosis: Arrhenoblastoma of blastoma of ovary; uterine fibroids and recurrent appendicitis.

OPERATION

Cyclopropane, oxygen, ether vapor anesthesia begun at 9:30 and discontinued at 10:30 a. m. Under general anesthesia, after preparation of the skin of the abdomen with benzine and mecuric chloride, an infra-umbilical midline incision was made. Upon opening the peritoneum, the fibroids came easily into view. The mass in the left adnexal region proved to be a pedunculated fibroid, the fibroid arising from the posterior-superior aspect of the uterus, and having a very small pedicle. This tumor measured about 13 cm. in diameter. The ovary on that side was very small, having undergone cystic degeneration and fibrosis. The ovary on the right side was within the upper limits of normal in so far as size was considered and its consistency was quite firm. Sectioning of the ovary proved it to contain a very pale yellow tumor, which evidently did not arise from the hilar portion of the ovary and which involved approximately four-fifths of the ovary without any evidence of invasion into the capsule.

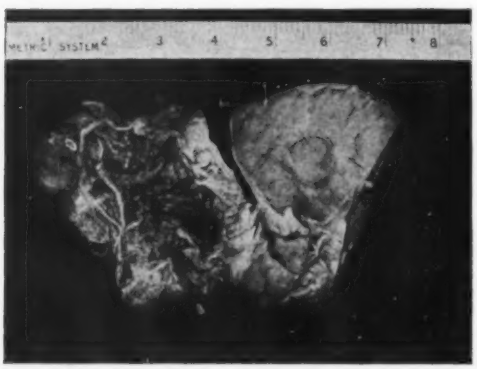


Fig. 1. Gross picture of intra-ovarian neoplasm, well encapsulated, lobulated, solid and of a yellow color.

A bilateral salpingo-oophorectomy was performed, using chromic catgut No. 2 as the suture material and being especially careful to ligate securely both ovarian arteries. The round ligaments were clamped near the uterus, severed and ligated with chromic catgut No. 2. The vesico-uterine fold of peritoneum was reflected down and the integrity of the bladder and ureters preserved. The tops of the broad ligaments were clamped, severed and ligated with transfixion sutures of chromic catgut No. 2. The uterine arteries were treated in a similar fashion, and the uterus was amputated just below the junction of the corpus and cervix. Tincture of mercuric chloride was applied to the stump, and three interrupted sutures of chromic catgut No. 2 were used to close it. The round and infundibulopelvic ligaments were then brought down and anchored to same to prevent prolapse thereof. The vesico-uterine fold proved quite adequate for peritonealization, chromic catgut No. 2 being used. There was no bleeding; no raw areas, the lap six count was correct.

The appendix presented evidence of a diseased state, containing many fecaliths; consequently, its meso was clamped, severed and ligated with chromic catgut No. 2. The appendix was crushed near its base and ligated with plain 0 catgut. The scalpel was used to sever the appendix distal to the site of ligation, and the stump was phenolized and alcoholized. It was then inverted and

the purse-string suture of linen 0 tied. There being a correct lap six count and no bleeding, the omentum was returned to its place in the pelvis and the peritoneum was closed with a continuous suture of chromic catgut No. 2. Similar material was used for approximation of the fascia after the introduction of three silkworm gut retention sutures. A continuous interlocking suture of medium dermal was employed for approximation of the operation. Her blood pressure was maintained around 130/80, and her pulse rate did not exceed 95 at any time. Bilateral salpingo-oophorectomy, supra-cervical hysterectomy and appendectomy performed.

The postoperative convalescence was uneventful. Maximum temperature 101 F. on the first postoperative day. The patient was afebrile after the third postoperative day. Sutures removed on the ninth postoperative day, the wound having healed by primary intention. She was discharged on the eleventh postoperative day, and returned to her home here in the city.

PATHOLOGY REPORT

The specimen consists of a uterus, two tubes, two ovaries and an appendix. The uterus appears enlarged and, upon section, it is noted that it is the site of six tumor masses, measuring from 1 cm. to 11 cm. in diameter. Some of these tumor masses are located within the myometrium, others are located subserously and are pedunculated. They are of a spherical shape, well encapsulated, cut with increased resistance and have a characteristic whorled appearance on cut section. The tubes appear of normal length and show nothing of note grossly. One of the ovaries appears somewhat smaller than normal and is quite firm and fibrotic. The other ovary is the site of a definite tumor mass, measuring 2½ cm. in diameter. This tumor mass cuts with moderate resistance and has a light yellowish appearance on cut section. It appears quite well encapsulated. The appendix measures 4½ cm. in length and 1.2 cm. in diameter. It shows nothing of note on external examination. On cut section the wall is markedly thickened, and the lumen is obliterated.

HISTOPATHOLOGY

The neoplasm in this instance presented the important classical histologic features of arrhenoblastoma. Neoplasms of this type supposedly arise from undifferentiated cells in the region of the rete ovarii. On the basis of histologic types, three forms of arrhenoblastoma may be mentioned: (1) The adenomatous type in which there is more or less mimicking of seminiferous tubule formation, often a sparcity of interstitial cellular structures and, therefore, at times little or no endocrine effect; (2) the diffuse spindle cell type which may simulate a sarcoma; (3) a mixed type in which tubular remnants and cuboidal cells with a pinkish staining cytoplasm, resembling Leydig cells, are noted in a diffuse spindle cell stroma.

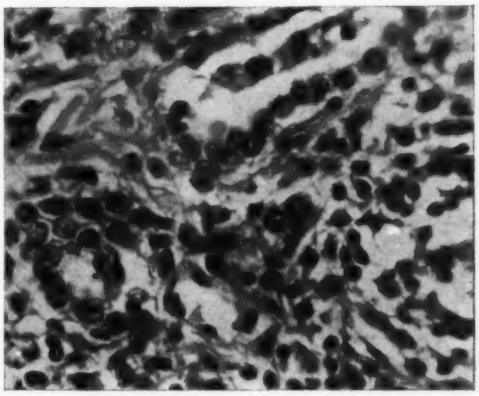


Fig. 2. Photomicrograph showing three alveolar structures lined by cuboidal epithelium resembling seminiferous tubule formation. x 400.

All in all, the histologic structure of arrhenoblastoma may vary within the widest limits. Various combinations of those types mentioned may be noted.

The histologic pattern of the arrhenoblastoma in the case herein reported presents features which the authors feel are classical for a neoplasm of this type. To begin with, numerous tubular structures lined by a single layer of cuboidal or colum-

nar cells, resembling seminiferous tubule formations are noted. These structures present rather conclusive evidence as to the histogenesis of this neoplasm. Secondly, certain isolated cells and cells in groups may be noted in the hematoxylin-eosin stained sec-

Fig. 3. Photomicrograph with arrows pointing at nests of cells with dark staining nuclei and large amounts of clear pink staining cytoplasm. Their resemblance of Leydig cells is striking. x 500.

tions which are roughly spherical, but more often cuboidal in shape. The cytoplasm of these cells is abundant, granular and stains intensely pink. It appears not unlikely that these cells may have a histogenetic relationship to the interstitial cells of Leydig. Finally, there is noted a diffuse strand-like arrangement of certain cellular components of this neoplasm. The cells making up this arrangement appear tapered or spindle-cell like, suggesting a sarcomatous pattern. Cells making up these strands or bundles run at right angles to one another. It is for this reason that on section some of the cells are cut longitudinally, presenting a spindle-cell contour, while others in the same section are cut transversely and, therefore, morphologically appear spherical.

FOLLOW-UP

The patient has been seen at regular intervals since the time of operation. Date of last examination, November 1941; at this time it was found that the hirsutism had disappeared, that the clitoris is markedly regressed in size and that the patient's voice is no longer masculine. She had not menstruated, but this, of course, is due to the fact that she has had a bilateral salpingo-oopherectomy.

CONCLUSION

A case of arrhenoblastoma of the ovary with typical histologic and clinical findings is presented.

REFERENCES

1. Meyer, Robert: Pathology of some special ovarian tumors and their relation to sex characteristics, Am. J. Obst. & Gynec., 22:697, 1931.
2. Novak, E.: Masculinizing tumors of ovary (arrhenoblastoma, adrenal ovarian tumors), with report of six additional cases of arrhenoblastoma, Am. J. Obst. & Gynec., 36:840, 1938.
3. Norris, E. H.: Arrhenoblastoma; malignant ovarian tumor associated with endocrinological effects, Am. J. Cancer, 32:1, 1938.
4. Dockerty, M. B. and MacCarthy, W. C.: Arrhenoblastoma, Surg. Gynec. & Obst., 68:769, 1939.
5. Krock, F., and Wolfermann, S. J.: Arrhenoblastoma of ovary, Ann. Surg., 114:78, 1941.

TUBEROUS SCLEROSIS

WITH A CASE STUDY

W. LAMAR BRYAN*
AND
T. A. WATTERS, M. D.*
NEW ORLEANS

Tuberous sclerosis was described pathologically in 1880 by Bourneville[1] and Hartdegen[2] when they reported separately a rare form of cerebral sclerosis occurring in young mentally deficient patients suffering with epileptiform seizures. Some[3,6] give Von Recklinghausen credit for an earlier description in 1863 when he described a case with myomas in the heart along with sclerotic areas in the brain. Bourneville named the disease tuberous sclerosis because of the potato-like masses found in the brain substance. Vogt[4] first described the clinical syndrome as one of mental deficiency, epilepsy, and adenoma sebaceum.

Many cases of tuberous sclerosis have a positive family history of nervous and mental diseases. Convulsions, which are the first symptoms to appear, usually begin in the first year and continue throughout the

*From the Department of Medicine, Division of Psychiatry, Tulane University School of Medicine.

Since the receipt of this manuscript Dr. Bryan has deceased.

life of the patient. The seizures are similar in all respects to either idiopathic or Jacksonian epileptiform convulsions. Mental impairment becomes evident at a very early age and may vary from imbecility to pronounced idiocy. Headache may or may not be present. The stance is usually unsteady and the gait is tottering, but there is no change in tone of the muscles. No sensory disturbances are present. The cases usually progress into a dementia and death takes place before maturity in status epilepticus.[5, 6]

The condition is often accompanied by neoplastic growths in the brain, skin, kidneys, heart, bone, pancreas, optic discs and retinae.[3] These tumors are usually undifferentiated embryonic neoplasms such as gliomas, hemangiomas, lipomas, mixed tumors and dermoid cysts. The skin lesions, adenoma sebaceum, by which the diagnosis is quite frequently made, consists of semiglobular nodules varying from red to brown in color and usually symmetrically arranged in a butterfly pattern about the nose in the nasolabial folds. Other skin lesions which have been described are fibromas, and oval or circular areas of pigmentation known as "café au lait,"[6] spots. The neoplastic growths suggest a change in embryologic metabolism,[6] especially in tissues of ectodermal origin.

Radiologic changes of diagnostic significance have been reported in tuberous sclerosis. Gottlieb and Lavine[7] have described changes in the skull consisting of thickening, osteoporosis and mottling of the bones. In the bones of the extremities there is periosteal thickening and the metacarpal bones reveal areas of increased rarefaction suggestive of cyst formation. Changes in the lateral ventricles as revealed by pneumoencephalographic studies consist of multiple dense tumor-like areas projecting into the lateral ventricles.[8] Another radiologic finding[9] of diagnostic value is the multiple disseminated areas of intracerebral subcortical calcification, or the multiple "brain stones."

CASE REPORT

The patient, a 49 year old negro male, was admitted to the hospital through the Out-Patient Service, March 24, 1941. He acted as his own informant and stated that he came to the clinic because of spells. He gave a history of having had generalized tonic convulsions with loss of consciousness as long as he could remember. (Patient was unable to give exact date of onset). At times he would chew his tongue and become incontinent of both urine and feces. He described no aura with his convulsions which occurred on the average of two or three times a day; their duration being four or five minutes. When he entered the examining room, some semiglobular nodules about the nose were observed, which, he stated had been throughout his life. He entered school at six, learned to spell and read a little but never progressed beyond the first grade. He married in his early twenties, there being one child by this union. He separated from his first wife a number of years before coming to the hospital and was living in the home of his sister who looked after him. The above story was confirmed by the sister who added that the patient was able to dress himself and care for his daily habits, but was unable to work. Neither the patient nor his sister admitted any familial nervous or mental diseases, but it should be pointed out that this sister appeared to be intellectually inadequate.

Examination: Mental status examination on the day of admission revealed an elderly negro male who appeared much older than the stated age of 49. He was dressed in rather disreputable clothes, but was clean. He exhibited no abnormal behavior or activity in the waiting room or in the examining room. His speech was slow and at times he seemed to make up words similar to those used by the examiner. His face revealed a degree of sadness, but he stated that his spirits were "good." He did not smile during the entire examination. No abnormal content of thought was elicited. In examination of the sensorium he was found to be oriented as to time, place and person. He was able to retain four digits. His recent memory was fairly good but remote memory along with simple calculation and general information was extremely poor. His judgment and insight were also poor.

Psychometric tests* revealed a mental age of five years and seven months, and an intelligence quotient of 37, placing him in the imbecile group.

Neurologic examination revealed a patient who walked with a wide base and wobbling gait which appeared to be more from weakness or senility than from true ataxia. In the Romberg position he swayed a little. Coordinated movements were performed well and the muscular tone was normal. There was slight gross tremor of the hands. All tendon reflexes were present within normal physiologic limits. The abdominal reflexes were hypoactive on the right and absent on the left. The Babinski sign was not present on either side. The muscular strength was poor but equal in all extremities. No abnormalities were noted in tactile, pain, temperature, vibratory or position sense. All the cranial nerves were intact. The pupils were round, regular and reactive to light. Arci seniles were present. Ophthalmoscopic examination revealed no abnormalities of the retinae or maculae. The optic discs were well outlined and of normal color with no evidence of tumor nodules being present either about or on the nerve head. No tremor was observed about the mouth and he was able to perform the test phrases well with no apparent difficulty in speech.

The general physical examination showed a well developed and well nourished elderly negro male. No adenopathy was present. In the skin over the nose and cheek bones were numerous semiglobular nodules ranging from pinhead to pea size (fig. 1).

Figure 1. Photograph of patient showing the distribution of adenoma sebaceum of the face.

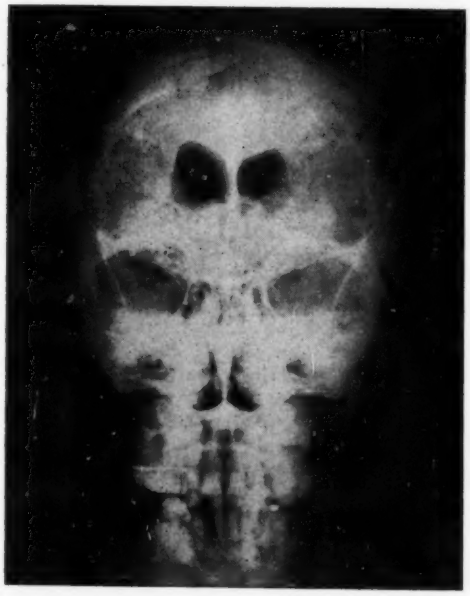
*We are indebted to Miss Marion Font, Psychologist of the Division of Psychiatry, Department of Medicine, Tulane Medical School, for carrying out psychological tests.

These nodules were very abundant in the region of the nasolabial folds. The color of the nodules was that of normal negroid skin except for slight increase in pigmentation. On the right cheek there was a soft tumor-like mass about 1 cm. in diameter lying beneath the skin, which was freely movable. Over the skin of the entire body there were areas of brown pigmentation about 1/2 cm. in diameter. Marked dental caries were present. Examination of the heart and lungs revealed normal findings. Blood pressure was 135/75. No scars were observed on the abdominal wall and there were no palpable masses felt in the abdomen. The genitalia were those of a normal adult male.

Laboratory: The voided urine was clear, pale yellow with a specific gravity of 1009, negative for albumin and sugar. The miscroscopic revealed a few leukocytes and bacteria. There were 5.25 million erthyrocytes. The leukocyte count was 9200 with a differential of 58 per cent polymorphonuclear neutrophiles, 2 per cent eosinophiles, 1 per cent basophiles, 2 per cent mononuclear leukocytes, and 37 per cent lymphocytes. The hemoglobin content was 13.9 grams. Both the blood Kline and Kolmer reactions were positive. The spinal fluid was clear and under a pressure of 120 mm. of water. The Queckenstedt reaction was normal, globulin negative and gold curve normal. There were less than ten cells per cubic mm. and both the Kline and Kolmer were negative. A biopsy from the skin in one of the nasolabial folds revealed an increase in connective tissue in the upper corneum, and in the deep region an increase in the number of sebaceous glands. Nevus cells and dilated blood vessels were also noted. The microscopic sections were examined by Dr. H. J. Schattenberg in the Department of Pathology at Tulane, and he was of the opinion that the histopathology was compatible with the pathologic picture of adenoma sebaceum.

X-ray studies of the skull showed some granular mottling of all the bones of the skull. The occipital bone was rather thick but within the limits of normal negroid skull. The sella turcica was flattened but within normal limits. Above the sella turcica within the brain substance was a round symmetrical calcified mass 1 cm. in diameter, with a fuzzy border. The pineal body revealed deposits of calcium. Pneumoencephalograms revealed the ventricular system well filled, slightly larger than normal, and in the midline with no evidence of shifting. The lateral ventricles had lost their normal contour and in the floor there were small tumor-like masses projecting into the body (fig. 2 and 3). The second and third left metatarsal

bone exhibited marked periosteal thickening (fig. 4). No cyst formation was observed in any of the long bones of the skeleton.*



Figures 2 and 3. A. P. and lateral encephalograms revealing the ventricular system filled with air. There is slight thickening and mottling of the skull bones. The calcified mass which was about 1 cm. in diameter is seen in both views. The ventricular system is slightly dilated and the lateral ventricles slightly distorted in shape. On the floor of the lateral ventricles, small tumor-like masses can be seen encroaching upon the lumen of the ventricles.

Figure 4. View of the left foot reveals slight periosteal thickening of the second and third metatarsal bones.

COMMENT

We feel that a diagnosis of tuberous sclerosis can be made clinically in this case because of a history of convulsions, mental retardation and adenoma sebaceum of the face. A significant family history is lacking. The radiologic observations exhibit nearly all of the classical changes occurring with this disease, namely, the mottling and thickening of the skull bones, "brain stones," candle guttering in the floor of the lateral ventricles and periosteal thickening of the long bones.

An interesting feature of the case is the man's stated age of 49, and his astounding ability to cope with his environmental situation in spite of his low mental age. Most cases of this disease succumb before the age of maturity.[4]

In the records of Charity Hospital there is only one other case diagnosed as tuberous sclerosis. It is one of a 16 year old female with mental deficiency, history of epilepsy since age of four and adenoma sebaceum of the face, which appeared at the age of 11. There was no familial history in this case. Laboratory examination was within normal limits and no positive radiologic findings were recorded. Pneumoencephalograms re-

*We appreciate the valuable help rendered by Dr. J. N. Ané of the Department of Radiology, Tulane Medical School, in interpreting the x-ray findings.

vealed slight symmetrical dilatation of the ventricular system. The records of Charity Hospital date back to 1907, and this indicates either a scarcity of the disease in this locality or a failure to recognize the entity.

CONCLUSION

We have reported a case of clinical tuberous sclerosis in a negro man 49 years old, who apparently is still in good physical health and with no evidence of psychosis. This case exhibits classical radiologic changes which are described.

REFERENCES

1. Bourneville: Contribution à l'étude de l'idotie. Sclérose tubéreuse des circonvolutions cérébrales: idiotie et épilepsie hémisplegique, Arch. de neurol., 1: 81, 1880 (quoted by Luo 2, and Vogt 4).

2. Hartdegen: Ein Fall von multipler Verhärtung des Grosshirns nebst histologisch eigenartigen harten Geschwülsten der Seitenventrikel (Glioma ganglioceliulare) bei einem Neugeborenen, Arch. f. Pschy., 11: 117, 1880 (quoted by Vogt 4).

3. Luo, T. H.: Conjunctival lesions in tuberous sclerosis, Am. J. Ophth., 23: 1029, 1940.

4. Vogt, Heinrich: Zur Patholigie und patholigischen Anatomie der verschiedenen Idiotieformen, Tuberöse Sklerose, Monatssch. Psychiat. und Neurol., 24: 106, 1908.

5: Tredgold, A. F.: Mental Deficiency, 4th ed. Baltimore, Wm. Wood and Co.

6. Critchley, Macdonald, and Earl, C. J. C.: Tuberose sclerosis and allied conditions, Brain, 55:311, 1932.

7. Gottlieb, J. S., and Lavine, G. R.: Tuberous sclerosis with unusual lesions of the bones, Arch. Neurol. & Psychiat., 33: 379, 1935.

8. Berkwitz, N. J., and Rigler, Leo G.: Tuberous sclerosis diagnosed with cerebral pneumography, Arch. Neurol. & Psychiat., 34:833, 1935.

9. Yakovlev, P. I., and Corwin, W.: A roentgenographic sign in cases of tuberous sclerosis of brain (multiple brain stones), Arch. Neurol. & Psychiat., 42:1030, 1939.

BILATERAL CORTICAL NECROSIS OF THE KIDNEYS

WITH A CASE REPORT

FRANCIS E. BRUNO, M. D.*

NEW ORLEANS

Bilateral cortical necrosis of the kidneys is fortunately a rare pathologic entity which is usually associated with pregnancy. While the pathologic changes in both the pregnant and non-pregnant patient are identical, bilateral cortical necrosis is not inevitably associated with pregnancy. The disorder does occur in connection with other conditions so that it could readily become a source of concern to the internist, surgeon and urologist as well as to the obstetrician, although it is infrequently seen. Talbott,[11] in a review of medical progress on heterogeneous renal disorders, estimates that less than 100 cases have been reported in the literature. Ash,[8] in 1933, discovered 60 cases in the literature, adding two additional cases of his own.

CASE REPORT**

Mrs. G. M., a 35 year old para I gravide II, was admitted to the ward service of St. Francis Hospital, Hartford, Connecticut, on March 15, 1941. Her last menstrual period was September 4, 1940, and the date of expected confinement was June 11, 1941. She had had no symptoms until two weeks prior to admission, when her ankles began to swell. For two days before entering the hospital she had been troubled by severe headache. There had been no visual disturbances. Because of these symptoms Mrs. M. consulted her private physician. After an examination she was told she had high blood pressure and albumin in her urine and was referred to the hospital, the impression being that she had "nephritic toxemia of pregnancy."

Upon admission the patient was drowsy and complained of headache. She was obese and examination of the abdomen was consistent with a five months pregnancy. There was marked pitting edema of the feet and lower legs. No abnormalities of the heart or lungs were noted. On rectal examination the cervix was soft and not dilated. The fetal heart was heard faintly, and was beating at a frequency of 146 beats a minute. The blood pressure was 198/116; temperature 98; pulse 74; respiration 20. Urinalysis; specific gravity 1.028; albumin 2+; 5 to 6 white blood cells and red blood cells.

The past history was significant inasmuch as it had revealed an earlier pregnancy, one year previous, which was complicated in the latter months by edema, albumin, and hypertension. On this occasion the condition was relieved after delivery of a male baby which survived only two days. There was no other history of antecedent nephritis.

Because of the edema and hypertension the patient received 100 c. c. of 50 per cent sucrose intravenously, and symptomatic treatment. On the day of admission, the total fluid intake was 800 c. c. and urinary output was 520 c. c. On the following day the intake was 1170 c. c. and the visible output was 30 c. c.

On March 17, the patient precipitately delivered herself of a stillborn premature infant. The placenta delivered spontaneously. There was no undue shock or loss of blood. After delivery, the tem-

*From the Department of Medicine, School of Medicine, Tulane University.

**I wish to acknowledge with thanks the permission granted by Sister John Marie and Dr. P. MacPartland of the record committee of St. Francis Hospital for allowing me to publish this case report.

perature rose to 101+ and the pulse rate increased. There was no obvious source of infection. Because of the oliguria the visiting urologist was consulted, who suggested the administration of continuous intravenous fluids. Despite the forcing of fluids, the urinary output was minimal. On March 19, because of the persisting oliguria, indwelling ureteral catheters were inserted by the consultant urologists. Despite heroic measures to promote diuresis and extrarenal sources of elimination the oliguria progressed to a true state of anuria. The patient expired on her seventh hospital day after a total anuria of two days and an ever deepening acidosis.

CHART

Date	Intake Total c. c.	Output (visible) c. c.	Blood Pressure	Albumin	CO_2	NPN
March 15	800	520	198/116	solid		
March 16	1170	30	196/112	1+		
March 17	1450	100	192/110	no spec.		
March 18	3100	150	180/100	2+	36	42
March 19	3050	85*	168/80	2+		
March 20	2000	100†	210/80	no spec.	26	69
March 21	1500	0	210/90	no spec.	8	

*Voided. †Vomited.

*Autopsy**: The body was that of a well developed white female with general anasarca. The breasts were firm and colostrum could be readily expressed. The abdomen was free of striae gravidarum and surgical scars. Kidneys: The perirenal tissues were edematous and indurated appearing adherent to renal capsules by a film of fibrin. Both kidneys were identical in size, and normal in contour. The capsules were not thickened and through them the cortical surfaces appeared fiery red with blotches of extreme pallor mixed with small hemorrhagic spots. Cut surfaces of both kidneys were identical, the cortices appearing as zones of yellow white anemic necrosis into which deep red hemorrhagic "flame-shaped" areas streaked upward from the medullary portions. A thin line of cortex, directly beneath the capsules was likewise bright red in color. The pelves and upper two thirds of the ureters were hemorrhagic. The uterus was 14 cm. in diameter, dark blue, and hemorrhagic in color suggestive of a "Couvalier uterus." The lining was shaggy and bloody without gross evidence of infection. Cultures were negative. The adnexae were not remarkable. The liver presented no focal lesions either hemorrhagic or necrotic which might suggest eclampsia. The markings were indistinct and the tissue was pale.

*Autopsy findings and the histologic description reported through the courtesy of Dr. L. P. Hastings, Director Pathological Laboratory, St. Francis Hospital.

MICROSCOPIC EXAMINATION

The kidney sections presented a striking picture. The capsule was hyperemic but not thickened, while directly beneath it was a microscopic zone of renal tissue which aside from hyperemia and edema was not remarkable. Beneath this was a wide zone of cortical tissue which appeared to have its histologic structure completely "wiped-out." Both the glomerular and tubular structures were visible only as shadows without cytology. Beneath this zone just above the medullary portion, the vessels including interlobular arteries were completely occluded by thrombi which appeared to be composed of fibrin and broken down erythrocytes. There were very few platelets or leukocytes visible in this material. This vascular occlusion extended throughout all branches, including afferent glomerular vessels. Beneath this zone there was less tissue destruction and the thrombosed vessels were clearly visible. The tubules were filled with hyaline material. Here the remaining glomeruli appeared to show more chronic lesions including cellular tufts which were adherent to their capsules. The liver, aside from slight degeneration about the central vein, showed no evidence of pathology. The spleen was deeply congested and throughout the sections the arterioles showed a well defined hyperplastic sclerosis. The uterus showed a lining marked by adherent blood and fibrin with fragments of spongy desidua but no evidence of inflammation, necrosis or exudation. The breasts presented typical gestational hyperplasia.

Sections of remaining organs added nothing to the pathologic picture.

DISCUSSION

The etiology of this interesting condition is unknown and various causal relationships have been ascribed since Juhel-Renoy[2] made the first reported observations. This case was one of a 16 year old girl who died of scarlet fever. Since that time the renal

lesions have been described as being associated with tonsillitis, periarteritis nodosa, diphtheria, pulmonary tuberculosis, peritonitis, malaria, grippe, cholera, cerebrospinal fever, pneumonia, burns, trauma, and following intravenous injections of camphor.[3,8] Despite these dissimilar associated conditions, it has been variously estimated that pregnancy is the etiologic factor in 77 to 86 per cent of all cases.[4,9] Penner and Bernheim[3] unexpectedly observed gross renal lesions closely resembling bilateral cortical necrosis of the kidneys in dogs following the injections of epinephrine They felt that the vasopasm occurring in a profound state of shock of sufficient duration might result in such lesions. No mention is made of the possibility of prior renal damage, such as might have occurred in the present case. Ash[8] states that in order to explain the uniform picture seen in the kidneys some factors common to all cases must be present. In this connection he incriminates coagulation of the blood, alterations in blood pressure, specific toxins affecting the vascular endothelium or the renal-epithelium, ischemia from pressure, emboli originating in the placenta, liver or from fatty tissues as possible factors in the production of this pathologic state.

The typical case presents a toxemia-like state (toxemia of pregnancy or nephritic toxemia) with the patient dying of uremic coma as a result of a non-obstructive anuria. The most constant and characteristic feature is the development of an increasing oliguria which progresses to anuria. The small amounts of urine that are passed show varying amounts of albumin, casts and cells. In view of the impaired renal function the blood chemistry reveals an ever rising increase of nitrogenous products which may be demonstrated even at short intervals of time. By the time the oliguria has become alarming, edema begins to appear and accounts for a rapid gain of weight. The temperature is elevated, especially in the presence of bacterial infection but it often becomes subnormal in the later stages.[10] The white blood count is variable, great elevations being reported in some cases.[9]

Polayes[7] states that the urinary suppression may occur abruptly without any prior abnormalities or even premonitory signs or symptoms of nephritis. When prodromal signs and symptoms do appear, they are those of eclampsia or nephritic toxemia, consisting of epigastric distress, and nausea or vomiting or both. Pain and tenderness[5] in the kidney region or abdominal pain[6] may presage the onset of the anuria.

About one-third of the patients have convulsions preceding or after delivery.[7] However, there is a decided lower incidence of convulsions in this condition than in true eclampsia, and the patient may appear to be improved after the uterus has been emptied, despite the progressive anuria. Headache, apathy, and impaired vision are more apt to occur in the terminal or uremic phase.

The blood pressure is not constantly high. It is usually highest in the eclamptic type of case, but Ash[8] found that of 23 patients the blood pressure was well within normal limits in 14. In three patients there was a reduction following the emptying of the uterus. It was felt that the anuria itself had but little influence on the blood pressure.

The pathology of the condition is covered most admirably in articles by other authors.[7,9] Grossly, the kidneys are somewhat large, with a yellowish-grey and violet-red mottling. The capsule strips with ease. On section the cut surfaces reveal an irregular outer rim of cortex which is necrotic. The cortex is definitely lighter colored, being a greyish yellow, whereas the medulla is markedly congested and stands out in striking contrast to the ischemic cortex. Subcapsular hemorrhages have been described. Microscopically the cortex shows definite necrosis. Hyaline thrombi may be observed in the afferent vessels and fibrin thrombi have been reported in the loops of the glomeruli. The tubular epithelium in the affected area may show varying degrees of degenerative changes. The renal architecture is in general poorly outlined and al-

most devoid of nuclei in the involved areas of the cortex.

Bilateral cortical necrosis of the kidney as a strict pathologic entity is without exception a fatal condition. Ash[8] states that so much essential tissue is destroyed that it is equivalent to a bilateral nephrectomy. However, if the condition is due to vasospasm it is conceivable that patients may recover if the pathologic changes have not progressed to actual necrosis.

The problem as to whether decapsulation is of value has been raised. It is possible that if it is done in the pre-necrotic stage, that extensive kidney damage may be avoided. It is felt that if the etiologic cause is sufficient to cause vasospasm of a degree and of a duration consistent with necrosis, then no therapeutic procedure can be of any avail. If the causative factor be increased, coagulation, or toxic effect on the endothelium or emboli from the placenta, liver, or fatty tissue, then it is most certainly true that decapsulation will be without benefit.

SUMMARY

A case of bilateral cortical necrosis of the kidneys occurring during pregnancy is reported. A brief survey of some of the literature relative to this condition is presented. Attention is called to the fact that bilateral cortical necrosis of the kidneys is a cause of non-obstructive anuria which may be a source of diagnostic concern to the urologist, internist and surgeon as well as to the obstetrician.

REFERENCES

1. Carson, W. J., and Rockwood, R.: Symmetrical cortical necrosis of the kidneys in pregnancy, Arch. Path., 1:889, 1926.

2. Juhel-Renoy, E.: De l'anurie precoce scarlatineuse, Arch, gen. d. med., 17:358, 1886.

3. Penner, A., and Bernheim, A. I.: Acute ischemic necrosis of the kidney, Arch. Path., 30:465, 1940.

4. French, R. W.: Acute necrosis of the kidneys, Am. J. Surg., 47:666, 1940.

5. Manley, J. R., Klimon, F. E.: Cortical necrosis of the kidneys in pregnancy, Am. J. Obst. & Gynec., 14:802, 1927.

6. Bamforth, J.: A case of symmetrical cortical necrosis of the kidneys occurring in an adult man, J. Path. & Bact., 26:40, 1923.

7. Polayes, S. H.: The pathology of bilateral cortical necrosis, Urol. & Cut. Rev., 45:37, 1940.

8. Ash, J. E.: Cortical necrosis of the kidneys, Am. J. Med. Sci., 135:71, 1933.

9. Weaver, R. G., and Von Haam, E.: Cortical necrosis of the kidney following tonsillitis, Arch. Int. Med., 1:63, 1084, 1938.

10. Apert, M. E. and Bach, E.: cited by Weaver and Von Haam, ref No. 9, p. 1091.

11. Talbott, J. H.: Heterogeneous renal diseases, New England J. M., 226:228, 1942.

—o—

SUBDIAPHRAGMATIC ABSCESS WITH PARTICULAR REFERENCE TO THE SURGICAL APPROACH*

JOHN G. SNELLING, M. D.
MONROE

Quite a number of articles on subphrenic abscess have appeared in literature in the past few years, but there still seems to be quite a great deal of discussion regarding the best method of surgical treatment. It is my purpose in this paper to review the subject briefly and to add 13 cases seen personally. Six of these cases were done at Charity Hospital in New Orleans, from 1928 to 1930, soon after Dr. Ochsner became Professor of Surgery at Tulane, and eight patients have been operated upon since I entered private practice at Monroe.

While subphrenic abscess is not a commonly occurring lesion, it is sufficiently frequent to warrant constant thought in dealing with surgical diseases of the abdomen. According to Ochsner and Graves, 70 per cent of the subphrenic infections, which are diagnosed from clinical manifestations, subside, and 30 per cent go on to ultimate suppuration.

In a series of 972 cases of acute appendicitis reported by Neuhof, 15 resulted in subphrenic infection, an incidence of 1.5 per cent. It is well agreed that subphrenic abscess is primarily a complication of intra-abdominal suppurative processes. This fact is readily borne out in the review of 3,608 collected, and personal cases reported by Ochsner and DeBakey. The authors state that in 85 per cent of cases of subphrenic abscess, the primary lesion was intra-abdominal; while over half of subphrenic abscesses were the result of suppurative le-

*Read before the sixty-second annual meeting of the Louisiana State Medical Society, Shreveport, April 21, 1941.

sions of the appendix and perforating lesions of the stomach and duodenum. In this series of 3,608 cases, 30 per cent were appendiceal in origin and 28.7 per cent were of stomach or duodenal origin. In 75 cases reported, the origin from each was 25.3 per cent. The next most frequent primary focus was a lesion of the liver and biliary passage; these lesions were antecedent in 12.6 per cent of collected cases and 21.3 per cent of 75 cases reported by Ochsner and DeBakey.

A small per cent of subphrenic abscesses may be primary or of metastatic origin; this per cent may vary from 3.1 to 5.3. These abscesses may also be the result of extension of thoracic lesions into the subphrenic space; this did not occur in any of the 75 cases reported by Ochsner and DeBakey, but was found in 2.5 per cent of 3,533 collected cases reported by these authors. Trauma may also be a rare etiologic factor. It was found in 2.1 per cent of collected cases and 1.3 per cent of Ochsner and DeBakey's series.

Reviewing my small series of cases, I found three followed perforating appendicitis, three perforated lesions of the stomach and duodenum, two extension of liver abscesses, four traumatic and one primary. It is generally agreed that the organisms most frequently found in subphrenic abscess are the colon bacillus, streptococcus and stapylococcus, with some variation of percentages reported by various authors.

In a report by Lehman and Archer, colon bacillus was present in 29.4 per cent; streptococcus 23.4 per cent; staphylococcus 23.4 per cent. Ochsner and Graves report *B. coli* present in 40 per cent, streptococcus 40 per cent and staphylococcus 20 per cent.

There are five possible routes of spread of infection of intra-abdominal foci to subphrenic areas: (1) By direct spread of contaminated fluid in the course of peritonitis; (2) by direct contamination with infected fluid from a ruptured hollow viscus in the nearby area; (3) via the lymphatics or retroperitoneal cellulitis; (4) by a penetrating wound or traumatic injury to the liver or subphrenic space; (5) by rupture of liver abscess. Extension of a thoracic lesion has already been mentioned. It seems to me that the route is not so important as is early recognition of subphrenic infection, immediate institution of conservative treatment, and early surgical intervention when indicated. The question of preventing subphrenic infection in the face of definite diffuse intra-abdominal lesions has been stressed by many authors. One of the measures most frequently used is the Fowler position—in all cases where there has been gross contamination of the peritoneal cavity. I feel that this is a good procedure and yet I have seen subphrenic abscess develop often where this part of the treatment was consistently carried out. I feel, therefore, that the majority of subphrenic infections reach this area by way of the lymphatics. Treusdale has clearly shown that the mode of infection is most frequent through the lymphatics of the peritoneal cavity, particularly those running from the ileocecal region.

DIAGNOSIS

The question of diagnosis has been made to appear quite simple by some authors and, while I do not agree that the differential diagnosis is by any means simple, I feel that if it is constantly borne in mind that subphrenic infections not infrequently follow suppurative intra-abdominal lesions. An early clinical, laboratory and x-ray study will reveal the cause of continued sepsis to be a subphrenic abscess.

In any patient showing signs of continued sepsis where a primary focus has been adequately handled and one feels that the patient should be showing definite improvement and where no other definite focus of infection can be determined, a tentative diagnosis of subphrenic abscess might be made and diagnostic measures instituted. In addition to the clinical and laboratory manifestations of continued sepsis, the local physical signs of pain and tenderness on the affected side are frequently present. A few patients complain of pain in the supraclavicular region of the neck or right shoulder; pain and particularly tenderness over

the lower ribs on the affected side is one of the most constant signs of subdiaphragmatic abscess. On fluoroscopic examination, the diaphragm on the affected side is found to be elevated and a varying degree of fixation is present.

Lewald, Pancoast and Granger have shown that the greatest single aid in helping to make a diagnosis of subphrenic abscess is a series of roentgenograms, preferably views should be taken in all directions, that is, posteriorly, laterally and obliquely. They should be taken with the patient in an erect and supine position, and during inspiration and expiration. Under this regimen, if subphrenic abscess is present, these views should show an elevated and motionless diaphragm; cloudiness of the costophrenic sinus and a change in the cardiophrenic angle. Below the diaphragm there is a dense shadow. In 15 to 30 per cent of these, a gas bubble is demonstrable (Elsberg and Berman). Elsberg and Berman show 15 per cent; Ochsner and DeBakey show 30 per cent. When this sign is present, it is of pathognomonic significance, but its relative infrequency should be borne in mind.

A number of authors in the past have advocated aspiration, but I feel that this procedure should never be done except at time of operation after the suspected area has been exposed to direct vision or to such extent that one may be definitely certain of not entering the pleural or peritoneal cavities.

I feel that the procedure of extraperitoneal and exploration under local anesthesia is comparatively simple and nonshocking, and where the diagnostic methods other than aspiration are suggestive enough to warrant it, this procedure should be carried out.

TREATMENT

At the present time, there are two types of drainage procedure which are advocated by many surgeons. One group of surgeons advocate transthoracic, extraserous approach. McWhorter has recently readvocated this procedure. Other groups still advocate the transthoracic and transerous route, attempting to prevent contamination of the chest by suturing the costophrenic surfaces of the pleura together or packing the wound and awaiting adhesions to develop and subsequently incising through this area. The mortality rate in this procedure is extremely high. Elsberg reports a mortality rate of 36 per cent.

Lehman and Archer report a case of massive perforated abscess into the pleural cavity while waiting for the adhesions to be formed in the packed area. DeBakey and Ochsner report that 16 cases in the group of 75, which were drained transpleurally, show a mortality rate of 50 per cent.

The transperitoneal route of drainage is equivalently disadvantageous because peritonitis frequently results. In 327 collected cases in which transperitoneal drainage was done, 113 resulted fatally, a mortality rate of 35 per cent.

In 275 cases reported by Ochsner and DeBakey, 14 were drained by transperitoneal route, six terminated fatally, a rate of 42.8 per cent. Nine of these were drained through limited adhesions; five drained through involved peritoneum, all of these with fatal results.

Without enlargement on the choice of procedures, it seems to me obvious that the extraserous extraperitoneal route is by far the best procedure advocated to date.

PROGNOSIS

The prognosis depends on many factors; the time elapsed from the beginning of the infection to starting treatment is most important. As a result of delay in diagnosis, the patient may die of sepsis; the longer the delay the more probable that thoracic complications will develop. In a series of cases reported by Lockwood, 41.9 per cent had intrathoracic complications; in a series reported by Beye 45 per cent had intrathoracic complications. Gatewood reported seven cases which developed empyema, five of which died. In a series of 50 cases reported by Ochsner and Graves, 52 per cent showed thoracic complications, whereas 18 per cent showed none. The types of drainage used are found to have definite effect on the prognosis. I think this needs no ex-

planation as this part has been covered and discussed adequately in literature and in this paper. For the details of technic of the extraperitoneal procedure, refer to the article by Ochsner and Graves in the Annals of Surgery, December, 1933.

SUMMARY

I have used the extra-pleural, extraperitoneal route for drainage in all cases. The twelfth rib was resected and the posterior approach used in all but two which involved the right anterior space. Out of the thirteen patients operated upon there was but one death—a mortality rate of approximately 7.6 per cent.

BIBLIOGRAPHY

Berman, J. K.: Subphrenic abscess, J. Indiana M. A., 18:217, 1925.

Beye, H. L.: Thoracic complications of dubdiaphragmatic infection, J. Thoracic Surg., 1:655, 1932.

Gatewood: Subphrenic abscess, Am. J. Med. Sci., 180:398, 1930.

Granger, A.: Radiological signs of subdiaphragmatic abscess, New Orleans M. & S. J., 82:749, 1930.

Lehman, E. P., and Archer, V. W.: Suprahepatic (subphrenic) abscess, South. Surgeon, 6:407, 1937.

LeWald, L. T.: Subphrenic abscess and its differential diagnosis roentgenologically considered, Arch. Surg., 10:544, 1925.

Lockwood, A. L.: Subdiaphragmatic abscess, Surg. Gynec. & Obstet., 33:502, 1921.

McWhorter, G. L.: Subphrenic abscess; original extrapleural operation, Arch. Surg., 35:241, 1937.

Neuhof, H.: Non-suppurative subphrenic peritonitis complicating appendicitis, Surg. Gynec. & Obstet., 14:231, 1912.

Ochsner, A., and Graves, A.: Subphrenic abscess, Ann. Surg., 98:961, 1933.

Ochsner, A., and DeBakey, M.: Subphrenic abscess, Internat. Abs. Surg., 66:426, 1938.

Pancoast, H. K.: Roentgenological diagnosis of liver abscess with or without subdiaphragmatic abscess, Am. J. Roentgenol., 16:303, 1926.

Truesdale, P. E.: Origin and cause of infection in subphrenic abscess, Ann. Surg., 98:846, 1933.

DISCUSSION

Dr. Alton Ochsner (New Orleans): Subphrenic abscess, as brought out, is a condition which occurs much more frequently than is commonly thought, and because it carries a high mortality rate if not correctly treated. Dr. Snelling emphasized the important part of diagnosis, namely recognizing the condition. If the patient has an intraperitoneal abscess and fever, one will consider abscess in the subphrenic space. If carefully checked the incidence of incorrect diagnosis will be lowered.

This operation is purely an anatomic one based upon the anatomic relationship of the costophrenic angle to the twelfth rib and spinous process of the first lumbar vertebra. You will see in the first drawing the costophrenic angle covers half of the twelfth rib; in the next drawing it is above the twelfth rib, and in the last drawing the twelfth rib is covered by the costophrenic angle. If one took the twelfth rib as a landmark there would be danger of injury to the pleura; if a spinous process of the first lumbar vertebra is taken as a landmark and a transverse incision is made from that point, the pleura will be missed.

The technic used is to make incision parallel to the twelfth rib, which is resected. Following this a transverse incision is made through the bed of the twelfth rib at the level of the spinous process of the first lumbar vertebra. After incising through diaphragm, one then has access to retroperitoneal space and can see the liver. If one suspects an infection of the right inferior space which is present in about 15 per cent of cases, one can aspirate the area. If suppuration is suspected in the right posterior space which is most frequently involved, the peritoneum is peeled off the inferior surface of the diaphragm. This is done readily and can be done easily in a normal individual; it can be done on a cadaver; and is particularly easy in subphrenic edema. After abscess is reached, one plunges the finger through the abscess wall and drains the cavity extraperitoneally. In inferior space infections one drains through the same incision.

Dr. Snelling called attention to the method of drainage of the right anterior space abscess. This method consists of incision along the costal margin down peritoneum and peeling the peritoneum from the diaphragm until the abscess is reached and then drained.

Dr. DeBakey and I, in going over these subjects, checked 322 cases and found that the appendix was the principal offender. Some were in the duodenum, liver, and bile passages, metastatic process was frequent.

As regards localization, most are on the right side, relatively few are retroperitoneal. About one-fourth are on the left side, and a small percentage are combined.

In transpleural drainage, which is most popular and yet a dangerous procedure, the mortality is about 38 per cent. Transperitoneal drainage gave a mortality almost as high. Extraperitoneal drainage, on the other hand, resulted in few fatalities. In the Charity Hospital it was shown that the mortality rate decreased when the incidence of extraperitoneal drainage increased.

Dr. John G. Snelling (In closing): There is only one point that I want to emphasize in closing and that is that the mortality rate in transthoracic drainage runs anywhere from 30 to 50 per cent, borne out by a number of different authorities. The mortality rates shown by Ochsner and Graves and Ochsner and DeBakey and my own series clearly indicate that the extrapleural, extraperitoneal method of draining subphrenic abscess will materially lower the mortality.

NEW ORLEANS
Medical and Surgical Journal

Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

Emmett L. Irwin, M. D., Ex officio
For one year: Leon J. Menville, M. D., Chairman.
D. I. Hirsch, M. D.*
For two years: Lucien A. LeDoux, M. D., Vice-chairman
H. W. Kostmayer, M. D.
Secretary
For three years: James K. Howles, M. D.

EDITORIAL STAFF

John H. Musser, M. D.....*Editor-in-Chief*
Willard R. Wirth, M. D.....*Editor*
Edwin L. Zander, M. D.....*Associate Editor*

COLLABORATORS—COUNCILORS

H. E. Bernadas, M. D.
C. Grenes Cole, M. D.
Guy R. Jones, M. D.
M. D. Hargrove, M. D.
John G. Snelling, M. D.
Rhett McMahon, M. D.
C. A. Martin, M. D.
W. F. Couvillion, M. D.

Paul T. Talbot, M. D.....*General Manager*
1430 Tulane Avenue

*Resigned August, 1941.

SUBSCRIPTION TERMS: $3.00 per year in advance, postage paid, for the United States; $3.50 per year for all foreign countries belonging to the Postal Union.

News material for publication should be received not later than the eighteenth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

Manuscripts should be addressed to the Editor, 1430 Tulane Avenue, New Orleans, La.

THE JOURNAL *does not hold itself responsible for statements made by any contributor.*

THE NEW OFFICERS

It is indeed a pleasure for the Journal to comment upon the new officers of the Louisiana State Medical Society who are elected at the regular annual meeting. Always they represent men who have taken an active interest in the Society, who have the welfare of the Medical Society at heart, and who are prominent in their community.

The new president, Dr. Emmett Irwin, as president-elect last year, was described in the Journal as a man of delightful personality, of outstanding reputation as a surgeon and one who had held the presidency of the Orleans Parish Medical Society. For the coming year we give to Dr. Irwin all best wishes. He takes office at a time when this country is at war and at a time when there are innumerable problems to be solved in medico-military matters. As president-elect Dr. C. C. deGravelles of New Iberia, was selected. Dr. deGravelles graduated from Tulane in 1910 and since that time has been one of the successful practitioners of medicine in the state. He has served on numerous committees of the State Society and for the past few years has been a Councilor from the Third Congressional District. Dr. deGravelles is well known throughout the southern part of the state. He has built for himself a splendid reputation, further evidenced by his selection as chairman and consultant in internal medicine on Medical Advisory Board No. 5 of Selective Service.

Dr. J. T. O'Ferrall of New Orleans, an orthopedic surgeon of fame and repute and an active worker in organized medicine, was selected as first vice-president. One of the younger medical men in the state, Dr. W. V. Garnier was chosen to succeed Dr. Alsobrook. Dr. Garnier, of Bastrop, attains this position not only because he is an excellent doctor but also because of his always pleasant and agreeable personality. Dr. E. H. Lawson, formerly president of the Orleans Parish Medical Society, was picked as third vice-president because he too has done much for organized medicine and is a man who gets along well with all those with whom he comes in contact.

Two of the four state Councilors were re-elected: Dr. H. E. Bernadas of New Orleans, to represent the First District, and Dr. M. D. Hargrove of Shreveport, to represent the Fourth. Dr. C. Grenes Cole, of New Orleans, a past president of the State Medical Society, was chosen as Councilor of the Second District and Dr. John G. Snelling of Monroe for the Fifth District. I believe it would be difficult to find four men better qualified to fill the important

positions of Councilors of the State Medical Society.

The newly elected committees are composed of men who will bear their share of the burden of running the State Society cheerfully and effectively. Dr. P. T. Talbot, Dr. Edgar Hull, and Dr. R. T. Lucas of Shreveport compose the new Committee on Scientific Business. Dr. Roy B. Harrison was re-elected as chairman of the Committee on Public Policy and Legislation and associated with him will be Drs. Rhett McMahon and C. G. Cole, and the president and secretary-treasurer ex-officio. This Committee will have a particularly important role to play within the next few months at the present session of the Legislature. Their responsibilities will be great but they will be carried out efficiently. Dr. Clarence B. Erickson of Shreveport was elected for a term of three years on the Committee on Medical Defense. The Journal Committee will be composed of practically the same members as last year. Dr. J. K. Howles was selected to succeed himself and to replace Dr. Perkins who has left New Orleans, the House of Delegates selected Dr. D. I. Hirsch for a term of one year. Under the able supervision of the Journal Committee it is hoped that the same high standards will be maintained by the Journal as the Journal Committee has insisted upon in past years.

One can foresee for the coming year difficulties, disappointments and maybe disasters. The lot of the officers for the coming year will be hard. Many will be the problems never before presented which will have to be solved. The Journal has every confidence that our State Medical Society will be in the executive hands of those who are well qualified in every respect to see the organization through difficult times.

THE PHYSICIAN AND STATE MEDICINE

Dr. William J. Mayo was a surgeon whose name and fame will be long lived. Dr. Mayo's reputation is based on his accomplishments and these were made possible because he was a man of broad vision, extreme intelligence and remarkable administrative and executive ability. In considering the subject of state medicine, he at one time wrote most pointedly that he was against state medicine because it encouraged mediocrity, because it would inevitably become politicalized, and because it was far removed from the high ideals of the medical profession. These statements of a great thinker as well as a great accomplisher merely echo the feeling of the average doctor in medical practice in the United States. It is his contention that state medicine, if it should ever come to pass, would encourage a civil service mediocrity in which individuals obtain positions, sit back on their haunches and do not do very much more than actually has to be done in order to meet the requirements of the position. To any one who has had the opportunity of working in a governmental position and seeing from the inside the workings of state departments of various kinds, one would realize that politicalization is extremely likely to ensue even if the chief executive is doing his best to prevent this very thing from occurring.

One of the beauties of the medical profession is the high spirit of idealism which permeates the healing professions. The doctor and the nurse give his or her very best efforts when sickness arises. They do it often with a spirit of altruism which is not surpassed by any other profession. The doctor considers only the sick man and what should be done for him and in his care of the sick he is guided by the traditions of his profession. The patient-physician contact is of extreme importance. The personal relationship between the two is one that is bound by a common bond. It is very hard and difficult indeed to visualize any idealism in the care of the sick person or in the conduct of a profession in which orders are given from headquarters, in which the patient becomes a number and not an individual, and in which there will be lost the intimate relations that now exist between the doctor and his patients.

Doctors of medicine feel that they are doing a good job now, they believe that few,

if any, in this country suffer from lack of medical care and they do not feel that the present professional set-up, which gives the best medical service of any place in the world to its citizens, should be disrupted or should be destroyed.

EXTRINSIC CAUSES OF HEART PAIN

In a recent article Gilbert* writes there are many clinical observations associated more particularly with angina pectoris for which it is difficult to obtain an explanation on the basis of intrinsic anatomic changes in the coronary blood vessels. Many of these symptoms can be explained by assuming certain vasomotor changes in the size of the vessel, diminishing flow-volume. A decrease in the flow apparently happens as result of autonomic stimuli from various organs with the result that diminution of coronary flow from these extrinsic factors may result in a diminished blood supply comparable to that which results from the intrinsic factors, namely the pathologic changes in vessel walls, which limit coronary flow when there is demand for additional blood. The intrinsic factors of course are not reversible but the extrinsic are and they may be minimized or done away with entirely.

The author points out it is quite generally accepted that the vagus has a tonic vasoconstrictor effect on the coronary vessels and that constrictor impulses are carried by this nerve. On the other hand, vasodilator impulses pass through the sympathetic fibers. Recognizing these factors it becomes comparatively easy to explain why the pain of angina pectoris may occur as result of certain functional changes in the body seemingly far removed from the heart. Anginal pain after eating is frequently observed, possibly as result of the increased work that the heart is called upon to carry out during the first period of digestion but this does not explain why the pain disappears when gas is belched or why it occurs at one time and not under similar conditions at another time in the same individual. This pain is probably due to reflex vasoconstriction as has been shown experimentally. A distended stomach in the experimental dog produced a marked decrease in coronary flow but this lessened coronary flow was done away with if atropine was given or if the vagi were sectioned. In his experimental work Gilbert has noted that distention of the abdominal cavity will produce the same results. He has observed also that anginal pain may occur when a low oxygen mixture is inhaled by the patient subject to angina. This pain disappears immediately when pure oxygen is given. The low oxygen pain occurs more promptly after a meal than when the stomach is empty. The pain is deferred by atropine, indicating that it is an intrinsic increase in vagal tone which produces the pain. Incidentally, the decrease in coronary flow was greatest if the cardiac end of the stomach was dilated. This may serve to explain why anginal pain so frequently disappears when a hiatus hernia is relieved by operation.

It has been shown, furthermore, that coronary vasoconstriction may be dependent upon stimuli originating in the esophagus. Here is the explanation for the attacks of angina which are brought on by swallowing. Other changes, mechanistic in type, may be produced in the same may, as for example, Stokes-Adams attacks.

It is well known that angina pectoris and coronary symptoms are associated with gallbladder disease, which symptoms are relieved by operative procedures. Gilbert has shown that there is a decrease in the coronary flow when the gallbladder is distended or when there is irritation of the bile ducts which does not occur if vagotomy is done or if atropine is given. It is well known that angina pectoris is often associated with duodenal ulcer, spastic colon or diverticulosis of the colon. Certain experimenters have shown that vagal reflex may originate in the colon as well as the gallbladder. Others have demonstrated that coronary vasoconstriction may be associated with the

*Gilbert, N. C.: Influence of extrinsic factors on the coronary flow and clinical course of heart disease, Bull. New York Acad. Med., 18:83, 1942.

entrance of an embolus in the pulmonary vessels, a reflex mediated through the vagus. These observers believe that coronary vasoconstriction produces death in many cases of pulmonary embolism and that it is not always due to asphyxiation or right heart failure.

The author brings out many other interesting explanations for anginous pain which is dependent upon extrinsic factors rather than upon the pathologic change within the blood vessel wall. It is obvious that these extrinsic factors which have a tendency to decrease coronary flow often can be done away with or at least minimized so that the anginal pain is not as severe as it was prior to the institution of proper treatment. Incidentally, in questionable cases it might be advisable to make use of the drug atropine with its vagus inhibiting effect in order roughly to test the patient so as to determine whether or not extrinsic factors are in part responsible for the heart pain.

HOSPITAL STAFF TRANSACTIONS AND CLINICAL MEETINGS

TOURO INFIRMARY
New Orleans

The regular monthly meeting of the Medical Staff was held on Wednesday, May 13, at 8 p. m. The following program was presented: From the Department of Medicine Dr. Walter Culpepper discussed the patients who were in Touro suffering from typhus fever since 1934. Drs. Evri Mendel and Martin Kaplan represented the Department of Pediatrics and reported 150 cases of premature mortality. Dr. Evri Mendel, representing the Department of Gynecology, gave a case report on ligation of the vena cava.

OCHSNER CLINIC
New Orleans

At a staff meeting of the Ochsner clinic held in February, the following article by W. G. Sawitz, M. D., was presented.

THE DIAGNOSIS OF AMEBIASIS
THE SIGNIFICANCE OF A NEGATIVE STOOL EXAMINATION

In amebiasis, the clinical manifestations are too protean to permit a specific diagnosis. The blood picture is usually unchanged and, although serologic reactions are feasible, they are not practicable at the present time. It is unknown whether skin sensitivity, agglutinins or precipitins are present. Complement-fixing antibodies have been demonstrated by Craig, and, in his hands, the complement-fixation test has given reliable results. The high specificity of the test, however, has not been confirmed by other workers. The difficulty with serologic tests in amebiasis lies in the preparation of antigen of consistent potency and stability. In 1942, Craig commented that the complement-fixation test is inferior, as a diagnostic test, to the microscopic examination of the stools.

The fecal material available for such examination is the normally passed stool, feces passed after purgation, and material obtained from rectal or sigmoid lesions by means of sigmoidoscopy. The material is examined either by one of the direct fecal films, or by concentration, that is, the zinc sulphate centrifugal floatation, or by a combination of these technics. Each of the materials to be examined, as well as each of the technics employed, has advantages and disadvantages. Liquid or semiliquid specimens contain only the trophozoite stage of the amebae, and formed stools only cysts. Semiformed stools may contain both. Trophozoites are diagnosed only by direct fecal technics, while concentration methods can be employed for cysts. Present culture methods for *E. histolytica* from stool specimens are not of great diagnostic efficiency.

Sigmoidoscopy is quite efficient in collecting amebae from lesions in the sigmoid or rectum. However, not all amebiasis patients show lesions in this area. Clark found lesions in the rectum in 71 per cent of 186 autopsy cases who had died of amebic dysentery or its complications. The percentage of involvement of the rectum or sigmoid in patients having latent or mild amebiasis probably is much lower. This is illustrated by Faust's study of the colons of 202 accident cases. Thirteen of these were found to have amebiasis and they showed a much more extensive involvement of the cecum-appendix area than of the sigmoid-rectum. Craig estimated that amebic lesions occur in the sigmoid or rectum only in about 30 per cent of those infected. On this basis, sigmoidoscopy is of value in establishing a diagnosis in only 30 per cent of amebiasis patients, and 70 per cent are likely to be missed.

A stool passed after a saline cathartic will contain trophozoites and occasionally cysts from the intestinal wall from the ileo-cecal valve on. One purgative stool examination is likely to detect about 45 per cent of those actually infected. The low percentage is due to the fact that mainly trophozoites are to be found in purgation stools and no concentration technic for these is available. Nevertheless, the percentage is higher than achieved by any other single technic. The disad-

vantage is that after purgation the amebae disappear from the following stool specimens and do not reappear for three to six days. Thus, the purgation cannot be followed successfully by examination of immediately passed stools. The procedure should be reversed and normally passed stool specimens examined first. Here we have the advantage of being able to employ concentration technics in addition to the direct fecal technics. The disadvantage, however, is that the amebae are highly diluted in feces. The efficiency provided by the examination of a single stool is rather low and suggests that protozoa are not evacuated in consistent numbers with each stool. Such a quantitative fluctuation has actually been demonstrated. The cycle between two high tide periods runs between four and 14 days, and the necessary four to five examinations should cover a period of about 10 days, that is, be repeated every other day.

The examination of three normally passed stools followed by the examination of a purgation stool and eventually even followed by proctoscopy will detect more than 90 per cent of the positives. Actually, we are not dealing with a group of positives and thus the efficiency rate on the basis of the positives is misleading. Of practical interest is the reliability of a negative report. A correct positive diagnosis depends solely on the proficiency of the examiner, and under this assumption is a certainty. The reliability of a negative result, however, depends on the efficiency of the technic of examination employed and the prevalence rate of the infection. Although the prevalence rate of amebiasis in a particular group is not known, it seems safe to assume that it is approximately 10 per cent in the United States.

On this basis, the reliability of a negative stool examination in the diagnosis of amebiasis when the prevalence rate is 10 per cent and the direct fecal film and zinc sulphate floatation are employed, is as follows: The negative result has a reliability of 0.93 if proctoscopic material, of 0.95 if purgation stool, of 0.95 if three normally passed stools, and of 0.99 if three specimens followed by purgation stool are examined.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

During the month of May the Society held one regular scientific meeting. The program was as follows:

Embryological Factors in Pelvic Thrombophlebitis—By invitation, Dr. Edward Nelson.

Thrombophlebitis of Pelvic Veins Following Vaginal Hysterectomy—Ligation of Vena Cava. By Dr. Conrad Collins and Dr. Jack Jones.

Thrombophlebitis of Pelvic Veins Following Criminal Abortion—Ligation of Vena Cava and Ovarian Veins. By Drs. Conrad Collins and Jack Jones.

NEWS ITEMS

Dr. E. A. Bertucci presented a paper on Tuberculosis Control in the Child of School Age at a recent meeting of the Catholic Nurses Guild.

Dr. Donovan C. Browne recently attended a meeting of the American College of Physicians at St. Paul. Dr. Browne has been elected a Fellow of this organization.

Dr. Albert E. Casey addressed the Beta Alpha Chapter of Beta Beta Beta at a recent annual reunion of this organization. Dr. Howard R. Mahorner and Dr. Gordon McHardy also attended this meeting.

Dr. Walter J. Otis presented a paper on Electrical Shock Treatment in Certain Neuropsychiatric Conditions at the May scientific meeting of the Mercy Hospital Staff.

Dr. B. Bernard Weinstein gave a paper on the Synthetic Estrogens in Gynecology at a recent meeting of the Epsilon Chapter of the Phi Lambda Kappa in Charlottesville. Dr. Weinstein was recently elected to membership in the American Association of Anatomists.

Drs. H. B. Alsobrook, Philips J. Carter, Conrad Collins, Peter Graffagnino, E. L. King, Oran V. Prejean, Joseph W. Reddoch, and Thomas B. Sellers attended the Second Congress of the American Obstetric and Maternal Welfare Society at St. Louis, April 6-10.

CALENDAR OF MEETINGS

June 1. Orleans Parish Medical Society, Board of Directors, 8 p. m.
June 2. Eye, Ear, Nose and Throat Staff, 8 p. m.
June 3. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Hutchinson Memorial Clinic Staff, 8 p. m.
Mercy Hospital Staff, 8 p. m.
June 4. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.
Baptist Hospital, Executive Meeting, 8 p. m.
June 8. Orleans Parish Medical Society, 8 p. m., Scientific Meeting.
June 10. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Touro Infirmary Staff, 8 p. m.

June 15. Hotel Dieu Staff, 8 p. m.
Clinico-pathologic Conference, Baptist Hospital, 8 p. m.
June 16. Charity Hospital Medical Staff, 8 p. m.
June 17. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
Charity Hospital Surgical Staff, 8 p. m.
Clinico-pathologic Conference, Hotel Dieu, 8:15 p. m.
June 18. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.
June 19. I. C. R. R. Hospital Staff, 12:30 p. m.
June 23. Baptist Hospital Staff, 8 p. m.
June 24. Clinico-pathologic Conference, Charity Hospital Morgue Amphitheater, 1:30 p. m.
French Hospital Staff, 8 p. m.
June 25. Clinico-pathologic Conference, Touro Infirmary, 11:15 a. m. to 12:15 p. m.
June 26. L. S. U. Faculty Club, 8 p. m.
New Orleans Hospital and Dispensary for Women and Children Staff, 8 p. m.

LOUISIANA STATE MEDICAL SOCIETY NEWS

CALENDAR

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
East Baton Rouge	Second Wednesday of every month	Baton Rouge
Morehouse	Second Tuesday of every month	Bastrop
Orleans	Second Monday of every month	New Orleans
Ouachita	First Thursday of every month	Monroe
Rapides	First Monday of every month	Alexandria
Sabine	First Wednesday of every month	
Second District	Third Thursday of every month	

REPORT OF THE HOUSE OF DELEGATES TO THE GENERAL ASSEMBLY OF THE LOUISIANA STATE MEDICAL SOCIETY

1942 MEETING—HOUSE OF DELEGATES LOUISIANA STATE MEDICAL SOCIETY

April 27-30

Minutes of 1941 meeting of House of Delegates adopted.

Minutes of Executive Committee meetings since 1941 meeting adopted.

The amendment offered at the 1941 meeting *in re Medical Defense* to amend *Section four of Chapter IV* of the *By-Laws* concerning medical defense, in which it is stated "the committee shall have full authority governing all matters pertaining to Medical Defense features of this Society . . . " to state "making it mandatory for this committee to employ a local counsel for the doctor in difficulty"—was tabled.

Motion was made and carried that the motion in re amendment to *Section 8 of Chapter VIII of* the *By-Laws* concerning approval of the Executive Committee of actions of the *Journal Committee*, be tabled and that a vote of confidence be extended the Journal Committee.

Amendment to *Section* 1, *Chapter IX* of the *By-Laws* in re *increase of dues to* $8.50 was approved.

Amendment to the *Charter* (*Article V*) to state that the *secretary-treasurer* shall be elected for a term of not more than five years, was voted upon by members registered at the meeting, and approved.

Amendment to *Section 6 of Article IV* of the *Constitution* so that members may become *inactive members* by recommendation of the Executive Committee, will be acted upon at the 1943 meeting in order to comply with procedure for amending the Constitution.

Reports which contained recommendations were acted upon as follows:

President—1. That the Walter Reed Memorial be made to include the whole personnel which composed the commission, with due acknowledgment of the work of the physician whose theory was established by this historic medical mission—Approved. 2. That the amount of increase in the dues allocated to the Indigent Physicians Fund be turned over to the general fund—Not approved. 3. Efforts have been made to make the scientific program more inclusive with the policy of having the Society sponsor all branches of scientific medicine. The objective has probably not been fully realized, but progress has been made and it is recommended that in the future the idea be further developed.—Approved.

Committee on Report of the Secretary-Treasurer —1. That an attempt be made to increase our membership among the licensed doctors of the state to help defray the expenses of operating the organization. 2. That some means be found to eliminate the deficit which will exist in our So-

ciety, indicated by the present budget—1 and 2 approved.

Councilor of Third District—1. That the monthly obstetrical meetings which have been held at the Lafayette Charity Hospital in the past be continued—Approved.

Committee on Cancer—1. To reaffirm the activities of the Cancer Committee—Approved. 2. To appropriate one hundred dollars ($100.00) for expenses for the year 1942—Referred to Budget and Finance Committee. 3. That this committee be authorized to cooperate with the State Board of Health in establishing a Division of Cancer in that organization—Approved. 4. That the Secretary-Treasurer write letters of appreciation to the editors of the New Orleans, Baton Rouge, Lake Charles, Monroe, Alexandria and Shreveport newspapers for articles published on cancer; also to the managers of broadcasting stations in these centers for the generous allocation of time to members of the profession and Field Army officers—Approved. 5. That a letter of thanks be sent to Drs. C. L. Mengis and John H. Musser, Director and Past Director of the Louisiana State Department of Health for the donation of space in the New Orleans Medical and Surgical Journal for the publication of monthly articles on the subject of cancer—Approved.

Committee on Care of the Indigent Physician—1. That ten dollars a month, per member, be contributed to ten indigent members from the Indigent Physician Fund—Approved.

Committee on Expert Testimony—1. Your committee does not wish to burden you with a review of the entire matter, as the needs governing the subject are well known to all. The following topics of interest are emphasized, and it is suggested that the incoming Committee on Expert Testimony be directed to begin at once to formulate rules and regulations governing the giving of expert testimony over the entire state. That this committee consult with the attorney of the State Medical Society and seek his advice and that said committee also consult with one or more of the Civil District Judges seeking their opinion from the judges' standpoint—Approved. 2. It is further recommended that the new committee discuss the matter of possible discipline for members of the State Medical Society if expert testimony is given upon a contingent basis—Approved. An amended motion was offered, voted upon and carried, that a copy be mailed to the secretary of each component society. 3. That it consider the qualifications of specialists and any other medical men who give expert testimony. Shall they be diplomates of specialty boards or members of such organizations as the American College of Surgeons?—Rejected. 4. That a minimum fee be established for expert testimony. That fees be established for medical members of commissions appointed by the several criminal courts and a method be devised to have the parishes guarantee the payment of such fees—Rejected. 5. That in view of the confusion with reference to the many changes being made in the laws of the state by the Courts versus the Reorganization Commission, this Expert Testimony Committee be cognizant of these recent changes as they occur and be governed thereby in making recommendations—Rejected. 6. That when final regulations are adopted by this State Medical Society a copy of same be sent to the Parish Courts for their information—Rejected.

Committee on Hospitals—1. There should be set up in each general hospital a certifying unit under the supervision of Social Service Workers, the personnel of this unit to consist of qualified workers not necessarily university graduates in social service—Approved. 2. As the basis for deciding those eligible for treatment in the hospitals the following minimum standard, as now adopted by the Charity Hospital of New Orleans, would be submitted to the Department of Institutions for consideration and possible modification, as local conditions in various communities might make necessary. Whatever basis would be decided on for a local hospital, however, would be after there had been consultation with the medical profession. At present the minimum standard adopted at Charity Hospital is, single persons, income $75.00 per month; couples living together, $100.00 per month, $15.00 allowed for each child or dependent—Rejected. 3. The foregoing regarding certification is intended in no way to replace the referral of any patient to the hospital by members of the medical profession; and it is further requested that the medical profession will refer only indigent patients to the Charity Hospitals of Louisiana—Approved.

Committee on Maternal Welfare—1. That midwives should fulfill the following requirements: (a) Trained for midwifery in a recognized school of midwifery—Rejected. (b) Must pass routine examination by Louisiana State Board of Medical Examiners—Approved. (c) Must work, in each parish, under the supervision of a committee composed of two members of the medical society and a parish health officer of that area, this committee to be directly responsible to the Louisiana State Board of Medical Examiners for the activities of the midwives—Rejected. 2. That a full-time man be appointed in the various state hospitals to start a complete set of residencies so that such institutions will be furnished with a source of supply for the future without resorting to securing out-of-state men to fill these positions—Referred to the Committee on Hospitals and the State Board of Institutions. 3. That the State Society confer with the State Board of Institutions, through its representative, Mr. Claude Harrison, to obtain more cooperation from the superintendents of the State Hospitals to carry out requests of the State Maternal Welfare Committee to further its aim in reducing maternal mortality in the state—Ap-

proved. 4. That the committee be given the power to consult with the assignment and procurement service in regard to the question of obtaining deferment of possible appointees to the residencies in obstetrics and gynecology in the various state hospitals—Approved. 5. That a conference between the State Board of Medical Examiners be arranged with the representatives of the State Board of Health and the State Maternal Welfare Committee to see if the law in regard to midwifery could be improved to make it more effective—Approved.

Committee on Mental Health—1. That the work of improving the state hospitals and increasing their facilities, both as to personnel and equipment, be continued; also that the establishment of psychopathic units in the general hospitals be considered still the most urgent and most important matter to receive attention—Approved.

Committee to Study Possibility of Creating a Pension or Retirement Fund—1. That this plan not be attempted—Approved.

Report by Chairman of the Nutrition Committee of the Orleans Parish Medical Society—1. That the Louisiana State Medical Society appoint a committee to collaborate with the Committee of the Orleans Parish Medical Society and with other agencies concerned with better diet programs in the schools and welfare work, so that uniformity may be obtained in the recommendations submitted to the public by physicians, teachers, welfare workers and others concerned and that these recommendations may come with the added force that they have met the approval of the physicians of this state.—Motion was made and carried that a committee be appointed by the Chairman to represent the State of Louisiana and that each congressional district be represented on this committee to collaborate with other agencies interested in nutrition. 2. That these lists be made available to all physicians at a moderate price, and that physicians be permitted to have them printed bearing their own names and that every physician in the state be urged to get one of these lists into the hands of everyone looking to him for health, and that the importance of verbal explanations and instructions be emphasized—Approved.

The following reports, which contained no recommendations, were accepted: Council; Councilors of First, Second, Fourth, Fifth, Sixth, Seventh and Eighth Districts; Committees on Journal, Medical Defense, Scientific Work, Walter Reed Memorial, to Prepare History of L.S.M.S. and Public Policy and Legislation.

By action of the House of Delegates the Chairman appointed a special committee to review the report submitted by the Department of Institutions to the *Committee on Tuberculosis* and referred to the House by the Committee on Tuberculosis. This special committee recommended that the report be referred back to the Committee on Tuberculosis so that they can make proper recommendations to be referred to the Executive Committee at its next meeting—Approved.

Motion was made and carried that the House of Delegates go on record as approving the recommendation for more beds for tuberculous patients.

The Chairman of the Committee on Hospitals was desirous of having an expression from the House of Delegates as to whether or not the charity institutions of the state should charge patients able to pay when they come in for emergency treatment. After considerable discussion motion was made and carried that the matter be tabled.

Motion was made and carried that the Department of Institutions throughout the state be notified that when industrial accident cases are picked up they should be taken to private institutions.

Motion was made and carried that the superintendents and residents of the various state charity hospitals be not permitted to practice medicine outside of the institutions on private patients.

Motion was made and carried that under the present war conditions the Board of Institutions will be privileged to suspend the general rule and allow men employed in the institutions in specialty capacities to consult and that this hold good for the duration of the war.

Dean John F. McCloskey, Dean of the New Orleans College of Pharmacy, Loyola University, addressed the House on "Changing Conditions Require Closer Relations Between Medicine and Pharmacy." Motion was made and carried that the House of Delegates express appreciation to the essayist for his splendid presentation. A special committee appointed by the Chairman to review the paper presented made the following recommendation—1. That a committee from this Society be appointed to collaborate with pharmaceutical bodies for the betterment of medicine and pharmacy in this state and in general—Approved.

A letter from Dean McCloskey, addressed to the Chairman of the House was read. This letter contained a request that a resolution be introduced at this meeting opposing any legislation which will affect the standards of pharmacy—Motion was made and carried that this matter be left to the Committee on Public Policy and Legislation.

Motion was made and carried that a telegram be sent to the family of Dr. J. C. Willis, Sr., who died just prior to the meeting and that a letter be sent to Dr. H. E. Bernadas who was unable to attend the meeting due to illness.

A telegram was read which was received from Dr. Wm. L. Marr, of Galveston who had been appointed as Fraternal Delegate to this meeting by the Medical Association of Texas, expressing regret that he was unable to attend the meeting.

A communication from the Chairman of the Section on Ophthalmology of the Michigan State Medical Society and the President of the Detroit Ophthalmological Society was read. This was referred

to the ophthalmologists of the state, represented by Dr. W. B. Clark and the report submitted from this group was to the effect that it still be retained as part of medical ethics that it be considered unethical for any ophthalmologist to lecture or give talks before optometrists or optometrical groups. The House of Delegates went on record as endorsing this report.

In line with a communication received from the Louisiana Pediatric Society, motion was made and carried that the Chairman appoint a committee composed of a representative of each of the specialty groups mentioned in the communication and the secretary-treasurer and anyone else whom he sees fit to appoint to give proper study to the subject of cooperation with the special groups when planning the program for the annual meeting and report back to the next annual meeting of the House of Delegates; also that the program committee next year try to incorporate the general idea of this type of program.

A communication received from the Franklin Parish Medical Society concerning participation by doctors in the parish in the plan of the Farm Security Administration, without approval of the local society, was referred to the Council.

Dr. W. S. Slaughter, of Baton Rouge, who has been serving, by appointment of the president of the Society, on a nutrition committee of the state which is a part of a national set-up conducted mainly by lay people, offered his resignation on this committee and motion was made and carried that this resignation be accepted.

A telegram received from Dr. J. Q. Graves, expressing regret that he was unable to attend the meeting was read.

Dr. Musser asked that he be relieved of presenting his paper scheduled for Tuesday morning, due to the death of his sister, with the request that some other member read his paper and motion was made and carried that this request be granted.

A letter from the Chairman of the Committee on Care of the Indigent Physician, recommending inactive membership for four members of Rapides Parish was read and motion was made and carried that this recommendation be approved.

Motion was made and carried that the House of Delegates go on record as unanimously expressing appreciation to Dr. Emmett Irwin for the luncheon given the House of Delegates.

Motion was made and carried that the Executive Committee be empowered to dispense with the 1943 annual meeting if they see fit to do so.

Dr. C. M. Horton, of Franklin, and Dr. Sam Kerlin, of Shreveport, were recommended for vacancy on the Louisiana State Board of Medical Examiners in re Dr. R. W. O'Donnell; Dr. Rhett McMahon of Baton Rouge, and Dr. Lester Williams, of Baton Rouge, were recommended in re Dr. Rhett McMahon.

The report of the Committee on Resolutions was accepted.

Election of Officers:

Dr. C. C. deGravelles, President-elect; Dr. John T. O'Ferrall, First Vice-President; Dr. W. V. Garnier, Second Vice-President; Dr. E. H. Lawson, Third Vice-President; Dr. P. T. Talbot, Secretary-Treasurer; Dr. H. E. Bernadas, Councilor First District; Dr. C. G. Cole, Councilor Second District; Dr. M. D. Hargrove, Councilor Fourth District; Dr. John Snelling, Councilor Fifth District.

Committees: *Scientific Work*—Dr. P. T. Talbot, Chairman; Drs. Edgar Hull and R. T. Lucas.

Public Policy and Legislation—Dr. Emmett L. Irwin, Dr. P. T. Talbot, Dr. Roy B. Harrison, Chairman; Drs. Rhett McMahon and C. G. Cole.

Journal—Dr. D. I. Hirsch, 1 year; Dr. J. K. Howles, 3 years.

Medical Defense—Dr. Clarence B. Erickson, 3 years.

Chairman of House of Delegates—Dr. Val Fuchs.

Vice-Chairman of House of Delegates—Dr. A. W. Martin.

Delegate to A. M. A. 1943 *and* 1944—Dr. Leon J. Menville.

Alternate to Delegate to A. M. A. 1943 *and* 1944—Dr. C. L. Peacock.

Next place of meeting: Baton Rouge.

REPORT OF COMMITTEE ON RESOLUTIONS

Whereas, The Louisiana State Medical Society has enjoyed one of its outstanding and successful meetings, and

Whereas, The success of this meeting is due to the zealous and untiring efforts and splendid cooperation of several individuals and organizations,

We therefore offer the following resolutions of cooperation:

1. To Dr. John T. O'Ferrall, General Chairman of the Committee on Arrangements, for his generous and untiring efforts which have contributed greatly to the success of the meeting.

2. To the Orleans Parish Medical Society, host of the meeting, for their splendid cooperation and the excellent manner in which the convention was conducted.

3. To the efficient staff of the Secretary's office and the Secretary-Treasurer whose careful preparation of the details of the meeting contributed much to its smooth operation.

4. To Dr. Val H. Fuchs, Chairman of the House of Delegates, for the efficient and orderly manner in which he conducted the meeting of the House of Delegates.

5. To the Woman's Auxiliary of the Louisiana State Medical Society whose wholehearted support and interest added considerably to the meeting.

6. To the scientific and commercial exhibitors whose splendid displays greatly enhanced the excellence of the meeting.

7. To the press of New Orleans for their in-

terest and assistance in giving space for news of the meeting and of various personages in attendance.

8. To Mr. Roy Bartlett, Convention Director, the personnel of his office, and the Roosevelt Hotel for the many courtesies extended and for their cheerful and willing attention to the innumerable calls for assistance.

9. To the Association of Commerce for their invaluable assistance at the registration desk.

10. To the members of the State Society who attended the meeting and whose interest and enthusiasm made the meeting a success.

We recommend that a copy of these resolutions be incorporated in the minutes of the meeting, a copy be given to the press, and a copy to the Bulletin of the Orleans Parish Medical Society and to the New Orleans Medical and Surgical Journal.

Respectfully submitted,
Rhett G. McMahon, M. D., Chairman,
W. E. Barker, M. D.,
P. G. Lacroix, M. D.

—o—

REPORT ON COMMITTEE ON MEDICAL DEFENSE

Below is given the present status of cases against six members which have been brought to the attention of the Medical Defense Committee since the 1941 Annual Meeting.

In April, 1941 a case brought against a Shreveport member was referred to the committee. Details of the case were submitted to our attorney who immediately interviewed the physician and prepared answers to the charges made. Nothing further has been heard from the plaintiff or the doctor since that time and the case has never been set down for trial.

The attorney filed an order in May, 1941 discontinuing, with prejudice, a case brought against a member residing in Bogalusa, which had been submitted to the Committee in March, 1939. This automatically closed the case.

The Orleans Parish Society referred to the committee a claim against a New Orleans physician, in October, 1941. The material was sent to the attorney and since that time nothing further has been heard about the claim and suit has not been filed against the doctor.

Two cases are being handled for another member of the Orleans Parish Society. The first, which has been pending for nearly four years, is in court and a jury has been asked for, however it has never been put on the docket by the plaintiff. The second has been set down for trial on several occasions, the last of which was in February, 1942, at which time the case was continued indefinitely on the motion of the plaintiff. Our attorney advises us that it is his opinion, with respect to both of these cases, that the doctor has satisfactory and sufficient defenses and that he has assured this member that if the cases are ever tried, which in his opinion is doubtful, he shall be able fully to protect his interests and obtain judgments in his favor.

Several exceptions have been filed in the case pending against a Lake Charles physician, previously reported by our committee, and our attorney has personally argued such exceptions on two occasions at which time the court maintained such exceptions, finally requiring the plaintiff to restate her entire petition. After this was done it was still found that the same did not comply with the Pleading and Practice Act and exceptions were filed to the redrawn petition. These exceptions were filed over six months ago and have never been set down for trial by the plaintiff. We are advised by our attorney that he is of the opinion that the physician in question has a complete and perfect defense.

During the early part of February, 1942 material was submitted to the committee in connection with a threatened suit against a member of the Orleans Parish Society. All data concerning this case were referred to our attorney who subsequently advised that the case was settled out of court.

Attached to the original report is financial report indicating the amount in the Medical Defense savings account and the trust fund.

Respectfully submitted,
S. Chaille Jamison, M. D., Chairman.

—o—

THE GOLF TOURNAMENT

The recent golf tournament at the time of the State Medical Society was most successful, some thirty-five members of the Society exhibiting their skill in the old Scotch game. The following prizes were awarded. Low gross prize was awarded to Dr. C. Gordon Johnson, and was a pair of golf shoes donated by the Roosevelt Hotel. Second low gross went to Dr. A. R. Morgan of Crowley, who received a sport suit donated by D. H. Holmes Company. The third low gross was given to Dr. Harry Meyer, and was a golf bag donated by Sears, Roebuck and Company. Dr. Edwin L. Zander was awarded the prize of the first low net score, which was a doctor's bag donated by the Surgical Equipment Company, which is a division of the A. S. Aloe Company. Dr. Conrad G. Collins received the second prize for low net, which was a leather kit, donated by McKesson and Robbins. Third low net was awarded to Dr. Peter Graffagnino, and was a fountain pen desk set, donated by Mead Johnson and Company. Dr. Virginia Webb had the proud distinction of receiving first prize for the high gross score, averaging slightly over 9's for the eighteen holes, which was a bottle of tincture metaphen, donated by Abbott Laboratories.

The other prizes that have been awarded were given for either low net or low gross, but no invidious distinctions will be drawn and there will be listed simply the names of prize winners, the

prizes and who donated them: Dr. Charles B. Odom, bottle of whiskey donated by Lederle Laboratories; Dr. W. G. Jones, Shreveport, a gift box donated by Sharp and Dohme; Dr. C. P. Rutledge, Shreveport, a gift box donated by Sharp and Dohme; Dr. A. D. Mangham, Elizabeth, a Lentheric set donated by the Medical Arts Drug Store; Dr. C. H. Weinberg, pen and pencil set donated by Hebert Pharmacy; Dr. E. L. Faust, Old Schenley whiskey donated by Winthrop Chemical Company; Dr. H. Ashton Thomas, Early Times whiskey donated by Waterbury's Drug Store; Dr. Leon J. Menville, Robertson County whiskey donated by I. L. Lyons Company; Dr. W. R. Hardy, Herbsaint donated by Legendre's, Inc.; Dr. L. R. DeBuys, bourbon whiskey donated by Katz and Besthoff; Dr. Ralph J. Christman, baumanometer donated by McDermott Surgical Instrument Company; Dr. C. S. Wood, Yendis whiskey donated by Eli Lilly and Company; Dr. Creighton Shute, stethoscope donated by Surgical Supply Company; Dr. E. H. Lawson, wallet donated by Mayer Israel Company; Dr. F. Temple Brown, sport shirt donated by Godchaux's; Dr. Val Fuchs, radio donated by Mead Johnson and Company; Dr. Edgar Burns, cocktail set donated by Meyer Brother Drug Company; Dr. Frederick Boyce, desk clock donated by Mead Johnson and Company.

EXECUTIVE COMMITTEE

There was a meeting of the Executive Committee of the State Society on Saturday, May twenty-fifth, at which the following officers were present:

Dr. Emmett Irwin, President; Dr. W. V. Garnier, Second Vice-president; Dr. Edwin H. Lawson, Third Vice-president; Dr. P. T. Talbot, Secretary-Treasurer; Dr. Val Fuchs, Chairman of House of Delegates; Dr. H. E. Bernadas, Councilor First District; Dr. C. Grenes Cole, Councilor Second District; Dr. M. D. Hargrove, Councilor Fourth District; Dr. John Snelling, Councilor Fifth District; Dr. Rhett McMahon, Councilor Sixth District; Dr. C. A. Martin, Councilor Seventh District.

After routine matters were disposed of there was a very interesting discussion of proposed bills to be presented at the current session of the State Legislature. These bills were turned over to the Committee on Public Policy and Legislation for appropriate handling.

Attention of the Committee was called to the need for wartime medical service and plans are being made to institute appropriate procedure for the handling of this important activity.

SIXTH DISTRICT MEDICAL SOCIETY

A meeting of the Sixth District Medical Society was held in Baton Rouge from 10:00 a. m. to 1:00 p. m. on Thursday, May twenty-eighth. Following was the scientific program presented:

Ectopic Pregnancy, by Dr. Jack Jones, New Orleans.

Ear, Nose and Throat Diseases in Children, by Dr. J. W. McLaurin, Baton Rouge.

Thyroidectomy (moving picture), by Dr. T. S. Jones, Baton Rouge.

The President of the State Society, Dr. Emmett Irwin, attended the meeting and addressed those present on important matters confronting the medical profession today. The meeting was also attended by Dr. P. T. Talbot, Secretary of the State Society, who made a few remarks concerning the present status of the organization.

APPOINTMENTS IN THE ARMY

SUBJECT: Procurement of Applications for Appointment in the Medical Corps, Army of the United States.

TO: All Physicians, State of Louisiana.

Due to the present emergency the Army requires the services of approximately twelve thousand additional Medical Corps Officers. The need is urgent.

If you are between the age of 18 and 60 years, it is your patriotic duty to make your services available to your government by applying for appointment in the Medical Corps and immediate active duty.

Get in touch with a representative of this Headquarters, at 605 Federal Building, New Orleans, Louisiana, immediately regarding this matter.

If you have already initiated action toward appointment as a Medical Officer, it will not be necessary for you again to contact this office.

ELBERT J. LYMAN,
Colonel, Infantry,
Executive.

NEWS ITEMS

The Annual Meeting of the American Association for the Study of Goiter has been cancelled on account of unsettled war conditions.

The International College of Surgeons will hold their National Assembly July 15-18 in Denver, Colorado, wtih headquarters at the Shirley-Savoy Hotel.

The American Congress of Physical Therapy will hold its Annual Scientific Clinical Session in Pittsburgh, Pennsylvania, September 9-12. Headquarters will be at the Hotel William Penn.

The American College of Physicians held its annual convocation in St. Paul on April 20-24. There was a very large attendance in which Louisiana men were well represented. The following doctors from this state were registered: D. C. Browne,

W. R. Galbreath, Edgar Hull, Sydney Jacobs, G. R. Meneely, L. A. Monte, J. H. Musser, I. L. Robbins, all of New Orleans; G. H. Faget, Carville; Otis S. Warr, Camp Claiborne; A. A. Herold, M. W. Matthews, T. B. Tooke, Jr., of Shreveport.

At the joint meeting of the Louisiana Academy of Sciences and the New Orleans Academy of Sciences held at the St. Charles Hotel, May 1-2, Dr. Charles Midlo acted as chairman of the Medical Section Symposium. This was on some aspects of war medicine. The speakers and their subjects were as follows: Dr. T. A. Watters, "Our Nerves and the War"; Dr. Urban Maes, "The Surgery of Modern Warfare"; Dr. Harry A. Davis, "The Problem of Blood Transfusion During Wartime"; Dr. Mims Gage, "Traumatic Aneurysms of the Femoral Artery."

At the recent meeting of the Texas State Medical Association President-Elect Dr. C. C. deGravelles was the Fraternal Delegate from Louisiana. Dr. J. H. Musser presented three papers before the General Session and the Section on Public Health.

Drs. George E. Burch and William A. Sodeman read a paper by title before the American Society for Clinical Investigation at the scientific session on Monday, May 4. The paper was entitled "Observations on the Weight of Water Loss from the Skin of Humans in a Subtropical Climate."

The ninth annual meeting of the American Rheumatism Association will be held at the Chalfonte-Haddon Hall, Atlantic City, N. J., June 8.

The annual meeting of the National Gastroenterological Association will be held at the Hotel Astor in New York, June 3-4. In addition to many other speakers, Dr. Alton Ochsner is on the program of this meeting.

Dr. Roy H. Turner appeared on the program on the occasion of the fifty-seventh annual meeting of the Association of American Physicians in Atlantic City. He spoke on "Reaction of Local and Remote Finger Blood Vessels to a Painful Injury to a Finger Pad."

There is a small rural hospital-clinic and practice for sale in a community 60 miles from New Orleans. Further information may be secured at the office of the Journal.

The Dow Chemical Company, Freeport, Texas, has opened a forty bed hospital in Freeport and desires the services of physicians, nurses, and technicians.

For detailed information communicate with the Dow Chemical Company, Freeport, Texas.

It is very regrettable to report the recent illness of our Past President, Dr. King Rand, who has been confined to Touro Infirmary following a surgical procedure. He has made very rapid recovery and will soon be back to his good health.

All doctors who have not returned the questionnaire recently sent out from Washington are importuned to do so at once. The Committee on Procurement and Assignment is doing a wonderful job but all must make every possible effort to furnish information to the office in Washington concerning their present status.

There has been unusual activity throughout the state in regard to civilian medical defense. Probably in the near future more definite announcement will be made concerning this feature. In the meantime organization is proceeding in the various metropolitan centers and parishes. Your cooperation in this work is most important.

DIGITALIS DOSAGE

Examinations of a number of samples of each of the various pharmaceutical forms of digitalis indicate that a substantial reduction in potency will result in changing from USP XI to USP XII standards. The exact reduction is not predictable but our data indicate that the reduction will amount to 40 per cent or more in at least one-half the cases.

In a drug in which standardization is as important as with digitalis, a change in potency of this magnitude is of the greatest interest to the physician and patient. It is suggested that during the transition period in which USP XI and USP XII products may both be available, conspicuous notice of the reduction in potency be given on the labels.

T. G. Campbell,
Commissioner of Food and Drugs.

MISSISSIPPI STATE MEDICAL ASSOCIATION

The Seventy-fifth Annual Meeting of our sister State's Medical Society was held May 12-14 at Jackson, Mississippi, under the leadership of Dr. Augustus Street of Vicksburg, the President. Dr. Street will be succeeded by Dr. H. Lowry Rush of Meridian, President-elect. An excellent scientific program was presented to the organization. Amongst the Louisiana doctors who appeared on the program were Dr. W. R. Buffington of New Orleans, who spoke on Retinal Detachment; Dr. Theodore A. Watters, whose subject was a Consideration of Mental Health as a Part of a State Health Program; Dr. C. L. Williams of the United States Public Health Service, whose headquarters are in New Orleans, also gave an address. Dr. Oliver P. Daly, Director of Charity Hospital of New Orleans, and Dr. A. J. Hockett, Superintendent of Touro Infirmary, participated in the meeting of the Mississippi State Medical Association.

BLOOD AND PLASMA BANKS

Regulations for the administration of the Blood and Plasma Bank Program of the Medical Division of the United States Office of Civilian Defense have now been prescribed, and funds are available for grants to assist approved hospitals in establishing blood and plasma banks. Only hospitals within 300 miles of the Atlantic, Pacific or Gulf coasts are eligible for such grants. After July 1, 1942, these geographical restrictions may be modified, so that grants may be made to inland hospitals. Applications should be addressed to the Chief Medical Officer, United States Office of Civilian Defense, Washington, D. C.

Technical manuals on blood and plasma banks, prepared by the Sub-committee on Blood Substitutes of the Division of Medical Sciences, National Research Council are now available for distribution on request of any hospital to the Chief Medical Officer, Office of Civilian Defense.

The Red Cross has established eighteen donor centers in various parts of the country which are successful in obtaining an adequate supply of blood donors for military purposes. Blood for the production of dried plasma for Civilian Defense purposes will also be obtained from these sources.

Hospitals which establish their own blood and plasma banks with the financial assistance of the Office of Civilian Defense are advised to build up their reserves of blood and plasma by expanding blood collection from relatives and friends of patients who are to receive transfusions. A public campaign for volunteer donors which may compete with the work of the Red Cross should be avoided if possible. If public solicitation is necessary, hospitals should appeal to the local chapters of the American Red Cross for assistance in recruiting hospital donors. Blood donor campaigns by agencies other than the Red Cross will tend to confuse the public and may interfere with the blood collection by the Red Cross for the armed forces.

Details can be obtained from the office of the Journal.

NATIONAL HEALTH COUNCIL

The election of Dr. George S. Stevenson, Medical Director of the National Committee for Mental Hygiene, as President of the National Health Council for 1942 was made public today by Thomas C. Edwards, Assistant Secretary of the Council. Dr. Stevens succeeds Dr. Kendall Emerson, Managing Director of the National Tuberculosis Association, who becomes Vice-president and Chairman of the Executive Committee.

Other officers elected are Dr. William F. Snow, General Director of the American Social Hygiene Association, who was elected Treasurer, and Mrs. Eleanor Brown Merrill, Executive Director of the National Society for the Prevention of Blindness, who was elected Secretary.

The following have been elected members of the Board of Directors for the next three years: Dr. Thomas Parran, Surgeon General, United States Public Health Service; Dr. Martha M. Eliot, Acting Chief, United States Children's Bureau; Dr. Reginald M. Atwater, Executive Secretary, American Public Health Association; Dr. Edmund P. Fowler, representing the American Society for the Hard of Hearing; Dr. C. C. Little, Managing Director, American Society for the Control of Cancer; Mr. Howard W. Green, representing the National Committee of Health Council Executives, and Dr. George Baehr. Also elected as members of the Board of Directors for the current year were: Mr. James L. Fieser, Vice-chairman, American Red Cross; Miss Ruth Houlton, General Director, National Organization for Public Health Nursing, and Mr. Robert Bondy.

AMERICAN SOCIAL HYGIENE ASSOCIATION

A special session on social hygiene was held in conjunction with the sixty-ninth annual meeting of the National Conference of Social Work in New Orleans on Thursday, May 14. This program was sponsored by a group of agencies in the City of New Orleans, including the Louisiana Parent-Teacher Association, Association of Commerce, Associated Catholic Charities, Tulane School of Medicine, Louisiana State University School of Medicine, Young Men's Christian Association, and other groups. Appearing on the program, at which Dr. Eugene B. Vickery presided, were the following speakers and discussors: Mr. Raymond F. Clapp, Monsignor P. M. H. Wynhoven, Lt. Col. Charles G. Souder, Dr. I. L. Schamber, Mr. Bascom Johnson, Mr. George Gould, Dr. C. L. Williams, and Dr. George M. Leiby.

UNITED STATES PUBLIC HEALTH SERVICE

Dr. Ford S. Williams has been ordered for duty in San Francisco, Calif. Dr. Carroll T. Bowen has been relieved from duty in Alexandria and assigned to the City Health Department, New Orleans. Dr. Seth W. Kellam has been relieved from duty in New Orleans ordered to Nashville, Tenn. Dr. W. H. Aufranc and Dr. W. P. Sellers have been relieved from duty in New Orleans, as has Dr. W. G. Budington, Dr. George G. Van Dyke, and Dr. T. E. Morgan.

INFECTIOUS DISEASES IN LOUISIANA

For the week ending April 11, the following diseases in numbers greater than 10 were reported to the Section of Epidemiology of the Louisiana State Board of Health; measles 354, syphilis 326, gonorrhea 51, mumps 49, pulmonary tuberculosis 35, lobar pneumonia 19, chickenpox 16, whooping cough 11. During this week there were reported seven cases of typhus fever, three of them from Iberia Parish and four arising in Madison Parish. A large number of the diseases reported for this week had their origin in army camps, for example,

70 of the cases of measles were in army camps. For the week terminating April 18, there were listed 251 cases of measles, 194 syphilis, 65 of gonorrhea, 45 of pulmonary tuberculosis, 36 of mumps, 29 of amebiasis, 23 of chickenpox, 13 of pneumonia, and 11 of chancroid. Most of the patients with gonorrhea were found in the army camps. However, the measles cases from the camps were reduced to only nine in this particular week. For the week closing April 25, syphilis again obtained first place in the number of reportable diseases, there being 239 cases, followed by 184 of measles, 82 of gonorrhea, 30 of mumps, 21 of chickenpox, and 16 of pulmonary tuberculosis. One case of typhus fever was found in Jefferson Parish. Fifty of the measles cases came from the cantonments. For the week ending May 2, measles jumped to the fore again with 320 cases being reported from the Board of Health, followed by 277 of syphilis, 37 of gonorrhea, 25 of mumps, 20 of pulmonary tuberculosis, 12 each of whooping cough and chickenpox. There was also recorded this week 62 cases of food poisoning due to an outbreak in Jefferson Parish. Army camps reported very few of the reportable diseases in this week. The measles epidemic continued as shown by the figures which closed May 9 at which time 191 cases were listed, but 113 of these came from army camps. Next listed in frequency was syphilis with 172 cases, followed by gonorrhea with 36, mumps and pulmonary tuberculosis with 29 each. During the past month very few cases of typhoid fever were reported in the state, no cases of poliomyelitis, and only a very few of meningitis. Diphtheria was never reported in numbers greater than 10.

HEALTH OF NEW ORLEANS

The Bureau of the Census, U. S. Department of Commerce, has reported for the week ending April 11 there was listed 128 deaths in the City of New Orleans, as contrasted with 140 in the previous week. These deaths were divided 85 white and 43 negro, with seven of them occurring in children under one year of age. For the following week there was a slight fall in the mortality figures as there were only 122 deaths in the city, divided 81 white, 41 negro, with six of these deaths being in infants. The week terminating April 25 showed a still further reduction in the number of deaths in the city. Of the 121 citizens who died this week 79 of them were white people and 42 were negroes, with nine infant deaths divided between the two races. The mortality figures still showed a decline in the week which ended May 2. There were 116 deaths sparsed 68 white, 48 negro, and 11 infant deaths. For the next week for which reports were still available, namely that which ended May 9, the 106 deaths from New Orleans were apportioned 74 white, 32 negro, with six infant deaths.

WOMAN'S AUXILIARY

The Fourteenth Annual Meeting of the Woman's Auxiliary to the Louisiana State Medical Society was held in New Orleans, April 27, 28, and 29, 1942. Attendance was excellent at all meetings. Mrs. Aynaud Hebert of New Orleans, President, presided at the pre-convention executive board meeting. One matter of importance at this meeting was the recommendation that a Widow's Fund be started by the Auxiliary since the doctors have taken up the Indigent Physicians Fund and we are no longer requested to contribute to this fund. This project was started this year by donations amounting to $45.00.

April 28 at 2:00 p. m. the General Session met at the Tip Top Room of the Roosevelt Hotel, Mrs. Aynaud Hebert, presiding. Rev. Msgr. Peter H. Wynhoven gave the invocation. The address of welcome was given by Mrs. Isidore Cohn, response by Mrs. F. C. Shute, in memoriam by Mrs. James W. Warren, music by Mrs. Edmond Souchon, and benediction by Rev. N. H. Melbert. Minutes were read and approved. Reports of State Officers, State Committees, Parish Presidents, and Special Committees were read and filed. Mrs. Wm. B. Clark gave the report of the Woman's Auxiliary to the Southern Medical Association; Mrs. A. A. Herold gave the report of the Woman's Auxiliary to the American Medical Association. In this report Mrs. Herold told us an office had been opened in Chicago to carry on the work of the Auxiliary. Mrs. Hebert gave a very complete and interesting report of her year's work, and thanked her coworkers for their loyal support. Mrs. Erickson, the incoming President, was then presented with the gavel by Mrs. Hebert. Mrs. Erickson then asked for the same fine cooperation for the coming year, and asked that all correspondence be answered immediately. The following officers were then introduced:

President—Mrs. Clarence B. Erickson, Shreveport.

President-elect—Mrs. George Taquino, New Orleans.

First Vice-president—Mrs. W. R. Harwell, Shreveport.

Second Vice-president—Mrs. A. D. Tisdale, Monroe.

Third Vice-president—Mrs. D. B. Barber, Alexandria.

Fourth Vice-president—Mrs. Thos. Richardson, Minden.

Treasurer—Mrs. C. R. Gowen, Shreveport.

Recording Secretary—Mrs. E. Ellender, Houma.

Corresponding Secretary—Mrs. W. J. Sandidge, Shreveport.

On Wednesday, April 29, at 10:30 a. m., the Post-convention Executive Board Meeting was held. Mrs. Clarence B. Erickson presided. A motion was made and carried that Hygeia again be made a

project of this Auxiliary. Exhibits are to be held over for next year's meeting in Baton Rouge. Plans for the Widow's Fund were discussed and Mrs. Aynaud Hebert was made chairman of that committee.

Wednesday at 1:00 p. m. a luncheon in honor of Mrs. Clarence B. Erickson was given at the Orleans Club, with Mrs. S. Chaille Jamison as Toastmistress. Dr. King Rand, President of the Louisiana State Medical Society and Dr. Emmett Irwin, President-elect of the Society, were honored guests for this occasion. Thanks were extended to Mrs. C. Grenes Cole, General Chairman, Mrs. J. T. O'Ferrall and Mrs. Roy B. Harrison, Vice-chairman, and Mrs. Paul Lacroix, President of the Orleans Parish Auxiliary. Appreciation was extended to Dr. J. T. O'Ferrall, General Chairman, and Dr. P. T. Talbot, Secretary-treasurer, for their cooperation and assistance. Mrs. Erickson suggested that all badges be collected after the luncheon, so that they may be used next year, as tin and copper are two of the metals needed for defense. This was done and badges were turned over to Dr. Talbot.

On Wednesday at 7:30 p. m. a dinner dance was given in the Ball Room of the Roosevelt Hotel. Dr. King Rand, President, introduced the speaker of the evening, Hon. Robert J. Usher.

Chairmen of Committees:

Archives—Mrs. P. Lacroix, New Orleans.

Doctors' Day—Mrs. J. B. Montgomery, New Orleans.

Exhibits, Mrs. B. L. Cook, Minden.

Finance—Mrs. R. Spedale, Plaquemine.

Historian—Mrs. M. C. Wiginton, Hammond.

Organization—Mrs. J. D. Frazar, DeRidder.

Cancer Control—Mrs. Nathan Polmer, New Orleans.

Program—Mrs. D. L. Kerlin, Shreveport.

Printing and Supplies—Mrs. F. C. Shute, Opelousas.

Public Relations—Mrs. D. T. Martin, Donaldsonville.

Revision of By-laws—Mrs. A. A. Herold, Shreveport.

Entertaining Service Men—Mrs. O. B. Owens, Pineville.

Bulletin—Mrs. R. T. Lucas, Shreveport.

Red Cross—Mrs. A. D. Mangham, Elizabeth.

Widows' Fund—Mrs. A. Hebert, New Orleans.

Councilors:

First District—Mrs. E. Souchon, New Orleans.

Second District—Mrs. W. R. Metz, New Orleans.

Third District—Mrs. Willard Ellender, Houma.

Fourth District—Mrs. J. E. Heard, Shreveport.

Fifth District—Mrs. C. P. Gray, Sr., Monroe.

Sixth District—Mrs. A. W. Martin, Bogalusa.

Seventh District—Mrs. Olin Moss, Lake Charles.

Eighth District—Mrs. M. H. Foster, Alexandria.

—o—

BOOK REVIEWS

Treatment of Infantile Paralysis in the Acute Stage: By Elizabeth Kenny. Minneapolis, Minn., Bruce Publishing Co., 1941. Pp. 285. Price, $3.50.

This work is a full exposition and apology for the Kenny treatment of infantile paralysis in its acute stage, written by the author and originator of that method. It incorporates the experiences gained by the treatment of a large number of cases in St. Paul, Minnesota, and gives a resume of the author's experiences gained with the use of the method in her home country, Australia.

The work is timely, inasmuch as there has been a good bit of publicity given the method in the lay magazines and journals. Unfortunately the present work is filled with apology for, and testimonials in support of the theories devised by the author to substantiate her claims. Because of this fact, the clear exposition of the method as used clinically is sometimes obscured. If one wishes to evaluate the method for personal use, however, the book is invaluable. The details of physical therapy, muscle re-education and muscle exercise are all incorporated in this work. For anyone who is interested in the mechanical conduct of the Kenny treatment, and the manner in which it is to be used in the treatment of an individual clinical case of the disease, the present work is indispensable. A statistical record of the amount or degree of residual paralysis and residual deformity for all cases treated to date, would have made the work much more convincing. One might gain the impression from casual survey that no case seen early had any residual disability, following treatment, yet this assumption cannot be made in the absence of proof that it actually existed. Certainly the interest in the Kenny method will provide for improvement generally in the treatment of acute poliomyelitis, since the method certainly has proved its worth to many competent authorities. Before using the method in any given case of poliomyelitis, a careful study of the present work should be undertaken.

F. J. Fox, M. D.

Eye Hazards in Industry: By Louis Resnick. New York, 1941. Columbia University Press. Pp. 321. Price, $3.50.

Following the presentation of some astounding statistics regarding the cost of industrial accidence to the eye, both from humanitarian and monetary points of view, the author proceeds to the

consideration of eye accidents, eye diseases, their causes and possible means of prevention and correction.

He estimates that during one year the cost of eye accidents to industry amounts to more than $110,000,000, and that the loss in wages suffered by injured workmen and the cost of government relief for injured men amounts to an additional $100,000,000 annually.

These accidents occur chiefly in the metal and metal products manufacturing industries, mining and quarrying, building and general construction, and lumber and wood manufacturing industries.

Following a process of "true cause analysis of accidents," the author concludes that 98 per cent of these accidents are preventable. Suggested corrective measures are directed mainly toward education of employers and employees.

Increased expansion of compensation laws has provided the greatest, though not the sole stimulus, to industry's growing concern with the prevention and cure of occupational diseases. Diseases resulting from the following are discussed briefly: (1) accidents or mechanical injuries; (2) exposure to injurious radiant energy; (3) exposure to toxic chemicals; (4) inadequate or improper lighting, and (5) communicable diseases which may be spread by unsanitary and improper working conditions.

The section on defective vision contains a graphic description of the errors of refraction. Actual investigations have shown that half, or even more than half, of certain groups of employees had defective and uncorrected vision. The writer believes that the cost to industry resulting from undiscovered and uncorrected defective vision among industrial workers is at least as great as the cost of industrial accidents and diseases causing total or partial blindness. It is suggested that all applicants be examined, that the correction of refractive errors be made a pre-employment requirement, and that visual limitations receive individual consideration in assigning workers to jobs.

The section on first aid has definite practical value. Emphasis is placed especially on the importance of immediate treatment in cases of burns due to acids and caustics. The limitations of treatment, of which the first aid (non-medical) helper is qualified, are pointed out.

The latter portion of the book is devoted to the more technical problems of "the solution," education, administration, design of mechanical guards, and proper lighting.

Of especial interest among the several appendices is the list of industrial poisons and the descriptions of their various effects.

GEORGE M. HAIK, M. D.

Arthritis in Modern Practice: By Otto Steinbrocker, B. S., M. D., in collaboration with John G. Kuhns, A. B., M. D., F. A. C. S. Philadelphia, W. B. Saunders Company, 1941. Pp. 606. Price, $8.00.

The authors present this volume to fill the obvious need for a practical source of information incorporating the newer methods in the diagnosis and treatment of rheumatic disease. They have done exactly this in an excellently systematized, twenty-five chaptered text which is remarkably concise in its amply illustrated 606 pages. Diagnostic and therapeutic measures predominate with only the essentials of pathology being considered.

It is easy to read the medico-social section which presents the true significance of rheumatic disease in relation to our economic structure. A classification of arthritis, well amplified, precedes the general survey of the subject and leaves the reader with a more practical attitude on how to make an accurate diagnosis of arthritis by its joint deformity. The entities fibrositis and fasciitis are established and it is truly interesting to review their manifestations which emphasize the importance of such knowledge in relation to internal medicine. A complete rationalization of rheumatic disease is realized in the following chapters and one readily appreciates the ability to avoid the waste, pain and risk of therapeutic trials.

Treatment is covered in a completeness that includes physiotherapy, local and regional analgesic injections, posture and exercises, manipulation and the actual operative and supportive procedures.

A concluding section consisting of a glossary of signs, syndromes and other data related to rheumatic disorders leaves the reviewer well pleased with the presentation and enthusiastically endorsing the work for its general value to the practitioner, internist and student as well as its specific relationship to the orthopedist.

GORDON MCHARDY, M. D.

The Modern Treatment of Syphilis: By Joseph Earle Moore, M. D. 2d ed. Springfield, Ill. Chas. C. Thomas Co., 1941. Pp. 674. Price $7.00.

This text chiefly deals with the procedures and technics advocated and utilized by the syphilis division of Johns Hopkins University—continuous, alternating arsenicals and bismuth or mercury treatment. A complete bibliography of discussed references follows each chapter. Frequent mention is made of the contributions of the Cooperative Clinical Group (C. C. G.) which is comprised of the chiefs of several of the larger syphilis clinics.

Modes of dissemination, latency, asymptomatic and late manifestations are discussed with the origin of the chemotherapeutic agents and their indications and usage as well as the different types of fever therapy, malaria being stressed when the latter therapy is indicated. The toxic manifestations due to therapy are given with proper consideration as to the remedial and therapeutic courses to follow.

The author stresses the necessity of a complete physical examination preceding the beginning of chemotherapy. The dangers associated with improper selection of therapy in cardiovascular syphilis is forcibly emphasized.

The necessity of a routine spinal fluid examination following a full course of treatment is emphatically suggested in order to prevent discontinuance of treatment in asymptomatic cerebrospinal syphilis. The care and necessity for early continuous treatment of the pregnant syphilitic woman and the care of the offspring are completely discussed. A short discourse on prophylaxis against syphilis and the marriage of the syphilitic is given.

This text has a place in the library of every medical practitioner who has any intention of treating syphilis.

MONROE WOLF, M. D.

The Medical Clinics of North America: November, 1941. Philadelphia, W. B. Saunders Co., 1941. Pp. 407. Price $2.50.

This is a most timely volume on a most vital problem confronting the country today. The entire book is given over to a symposium on military medicine. It is quite comprehensive although one feels as he reads the book that some of the discussions are somewhat lengthy. There are quite a few illustrations, charts and references that should prove worthwhile. In this same volume will also be found an index to volumes 23, 24 and 25 for the years 1939, 1940 and 1941.

I. L. ROBBINS, M. D.

Skin Grafting; by Earl Calvin Padgett, M. D., F. A. C. S. Springfield, Ill., Charles C. Thomas, 1942. Pp. 149. Price, $4.50.

This important monograph on skin grafting, the first treatise of this kind to find its way into the literature, represents the clinical experience of one who has devoted many years to his specialty. It is an outstanding contribution to the field of skin coverage, and is most informative as to type, kind, variety, and indications for skin grafting.

The book is written in a clear, concise manner, is freely illustrated, and the chapter devoted to the "¾ thickness" grafts, with the author's method of securing same with his "dermatone", is extremely instructive. Other methods of securing free skin grafts are amply described.

The chapter on the grafting of sulci and cavities is rather brief, as well as the comments on the valuable pedicle and tubed pedicle grafts, which have been given more detailed and exhaustive description in other treatises on plastic surgery.

The book gives the impression of advocating the more frequent application of free skin grafts, particularly the "¾" skin grafts, as compared to pedicle grafts.

The author gives in detail his experiments with calibrated skin grafts or superficial and superficial-intermediate grafts in a series of tables showing their comparative values.

This book of 149 pages is freely recommended to those interested in this type of work.

WALDEMAR R. METZ, M. D.

A Handbook of Ocular Therapeutics; by Sanford R. Gifford, M. A., M. D., F. A. C. S. 3d ed. rev. Philadelphia, Lea & Febiger, 1942. Pp. 410. Price $4.00.

The 1942 edition of this valuable reference book adds materially to the armamentarium of ophthalmology. Current ophthalmic therapeutic conceptions and experiments are presented in simple language and are evaluated by one of this country's first ophthalmologists.

Complex but important subjects of exceptional interest such as mimetics, vitamins, sulfonamides and buffer solutions are discussed in a concise and understandable manner. The author's openmindedness, frankness, and sound judgment are among the admirable features of this work as is the absence of bunk. The first is illustrated in the discussion of vitamin therapy; the second, in orthoptic training; the third, in dacryocystitis; and the fourth, in the sodium gold thiosulphate treatment of uveitis. The bibliography is comprehensive and well arranged. In the next edition, the following ideas are suggested. Seborrhoeic blepharoconjunctivitis is much more frequent than the author infers, as three of every four patients who consult an oculist have a psycho-neurotic factor, a brief description of health routines, its major treatment, could be incorporated to advantage. Among minor suggestions are the following: The umbilical nodules of moluscum contagiosum being highly contagious should be cauterized after their expression; and bandaging is an important adjunct to the other treatment of superficial punctate keratitis.

The ophthalmologist will make no mistake in using this handy little volume as a reference book.

CHARLES A. BAHN, M. D.

Synopsis of Genitourinary Diseases; by Austin I. Dodson, M. D., F. A. C. S., 3d ed. St. Louis, C. V. Mosby Co., 1941. Illus. Pp. 302. Price, $3.50.

The author very tersely implies the purpose of this text in the Preface. The reviewer knows of no single volume that presents the subject, as the author wishes it to appear to the medical student and general practitioner, in such a concise, efficient manner, although at several points there are omissions that would necessitate repetition further on in the text where detailed descriptions are made. For instance, diabetic cord bladder has a place under neurogenic disturbances attributable to difficult urination and incontinence (p. 23); spermatorrhea and seminal vesiculitis may cause urethral

discharge (p. 24); torsion of the spermatic cord and testis should be mentioned on pages 28-29 although considered on page 207,—it is not sufficiently emphasized in any textbook.

The reviewer has found that the patient in the supine position is less satisfactory for prostatic examination than when he is placed in a lateral position with the thighs flexed and the examiner standing in front of the patient (p. 29). Urates may cause cloudy urine and readily clears on heating (p. 33). The reviewer appreciates the author's omission of hot sitz baths in his recommendations for heat in prostatic infections. No mention is made of the calcium salt of mandalic acid although it is as efficacious and much less irritating to the kidney tubules. This drug is also effective in *Streptococcus foecalis*. A correction should be made on page 53 on the dosage, grams should read grains as stated on page 110 where the correct dosage 200 grains is mentioned. Continued unaccountable hyperpyrexia should be mentioned as a toxic manifestation of the sulfonamides. New growth within a bladder diverticulum should be given consideration (pp. 82-84). The dietetic resumé (pp. 119-25) is space utilized to great advantage as few practitioners have dietitians available. Some mention of the sulfonamides and fever therapy should be made in the care of gonorrheal arthritis (p. 138). The incidence of tuberculosis of the urinary tract is not as prevalent in this territory as the author's statistics would indicate.

MONROE WOLF, M. D.

A Textbook of Surgery; by American Authors; Ed. by Frederick Christopher, B. S., M. D., F. A. C. S. 3d ed. Philadelphia & London, W. B. Saunders Co., 1942. Pp. 1764. Price, $10.00.

The first edition of this textbook was published in 1936, followed in 1939 by a second edition. The third edition completely revised and reset, follows the excellence of its previous publications. This reviewer commented on the previous edition for the New Orleans Medical and Surgical Journal in 1939, and stated that it was the best textbook of surgery. So rapid are advances that many changes have of necessity had to be made. In checking over this edition for such progress as vitamin K, the sulfonamides, changes in concept and treatment of peripheral vascular diseases, it is noted that this edition has been brought up to date. So excellent is this textbook, that if all were as accurate and as modern, the necessity of teaching students by reading lists from journals, would not be so essential. The references given at the end of each chapter, while not exhaustive, are sufficient to direct the student to modern authority on that particular subject. The student and practitioner will benefit by having this book for study and for reference.

HOWARD MAHORNER, M. D.

PUBLICATIONS RECEIVED

D. Appleton-Century Company, New York: Textbook of Clinical Parasitology, by David L. Belding, M. D.

Charles C. Thomas, Springfield, Illinois: Surgical Physiology, by Joseph Nash, M. D.

W. B. Saunders Company, Philadelphia: Carcinoma and Other Malignant Lesions of the Stomach, by Waltman Walters, B. S., M. D., M. S. in Surgery, D. Sc., F. A. C. S., Howard K. Gray, B. S., M. D., M. S. in Surgery, F. A. C. S., and James T. Priestley, B. A., M. D., M. S. in Experimental Surgery, Ph. D. in Surgery, F. A. C. S.

Lea & Febiger, Philadelphia: Electrotherapy and Light Therapy, by Richard Kovacs, M. D. The Electrocardiogram and X-Ray Configuration of the Heart, by Arthur M. Master, B. S., M. D., F. A. C. P. Athletic Injuries, by Augustus Thorndike, M. D.

Columbia University Press, New York: Directory of Medical Specialists 1942, certified by American Boards.

The Medical Journal Press, New York: The Eclipse of a Mind, by Alonzo Graves.

The C. V. Mosby Company, St. Louis: The Eye Manifestations of Internal Diseases, by I. S. Tassman, M. D. Management of the Sick Infant and Child, by Langley Porter, B. S., M. D., M. R. C. S. (Eng.), L. R. C. P. (Lond.) and William E. Carter, M. D. Synopsis of Materia Medica, Toxicology, and Pharmacology, by Forrest Ramon Davison, B. A., M. Sc., Ph. D., M. B. Synopsis of Ano-Rectal Diseases, by Louis J. Hirschman, M. D., F. A. C. S.

Reynal & Hitchcock, Inc., New York: Night of Flame, by Dyson Carter.